The Lumleian Lectures

ON

THE PRINCIPLES WHICH GOVERN TREATMENT IN DISEASES AND DISORDERS OF THE HEART.

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LECTURE II.[1]

Delivered on March 29th.

MR. PRESIDENT AND FELLOWS,—The general line of treatment of acute inflammatory diseases of the heart is the same in the vast majority of cases. We might, after recognising the presence of heart disease, so far as treatment is concerned, keep our stethoscope in our pockets, for we have chiefly to consider the fundamental complaint of which the cardiac affection is in most cases a part, and this disease is, in the majority of instances, acute rheumatism. Now, from the heart point of view and, indeed, from any point of view, I think all authorities are now agreed that the right treatment of acute rheumatism is absolute rest in bed in woollen wrappings, a free relief of the bowels, and the administration of salicylate of soda in efficient doses in combination with such alkaline remedies as the condition of the urine may suggest. It was shown very emphatically by the late Dr. Sibson[2] that the difference between absolute and incomplete rest in the treatment of acute rheumatism was an exemption from heart complication of 71 per cent. as contrasted with 44 per cent. We never see now those cases of acute rheumatism involving from three to six weeks' acute suffering so little influenced by treatment as to render possible the warm discussions of not thirty years ago at our clinical societies respecting the relative merits of alkaline drenches, multiple blisters, or mint-water drinks and dry cotton-wool applications in that disease. But few cases now endure more than five days' suffering under the salicylate treatment, and a treatment of the general disease thus successful can scarcely fail with due care and foresight to prove in some degree preventive of cardiac lesions, which are true manifestations of the rheumatic poison usually of somewhat later appearance than the joint phenomena. The earlier statistics, both with regard to the influence of salicylates and of other drug treatments in lessening the tendency to heart disease in rheumatism, are for the most part valueless, being based on hospital cases, the previous existence of heart affection not being certified and the treatment before entering hospital not given. It can scarcely be doubted, however, that the current view that salicylates do not lessen the liability to cardiac lesions is founded on the fallacy that cases early relieved of pain and fever by salicylates are often allowed to get up too soon. The so-called relapses are rightly described by Dr. R. P. Howard as rather "recrudescences of a disease not yet terminated." The average time spent in hospital for acute rheumatism, thirty days, is nearly the same under all treatments, the full alkaline treatment having a slight advantage, and during the greater part of this time the patient must remain in bed under strict treatment by warmth and rest and appropriate drugs. If, therefore, on the relief of pain and reduction of temperature the patient be regarded as convalescent and be allowed out of bed he assumes the position of one with acute rheumatism still upon him treated with incomplete rest and so becomes doubly liable to cardiac manifestations.

I may pass by the local treatment of cardiac disease in rheumatism with the remark that it varies according to the views of particular physicians. Some prefer to keep the heart, like the joints, warm; others to endeavour to render it, unlike the joints, cold. There is no doubt that a certain few cases are wisely treated variously at the physician's discretion by cold or warmth, by blisters or leeches, according to particular indications. It cannot be said that any one plan of treatment is to be recommended as superior in all cases. Whilst the treatment of acute cardiac diseases in rheumatism is not guided by stethoscopic indications it is, of course, quite different with diagnosis and prognosis and I need not in this place remark that in any febrile illness in an infant or child until its nature be fully declared the heart must be especially scrutinised again and again. For cardiac rheumatism is in the young child frequently associated with little or no joint manifestations. Dr. Barlow and Dr. Cheadle have drawn special attention to the presence of painless superficial fibrous rheumatic nodules in young subjects and Dr. Cheadle regards these as especially apt to be associated with severe cardiac affection. My point of view with regard to children's rheumatism is that the frequency with which it is overlooked in the early days of the disease is responsible for much of the peculiar gravity and frequency of cardiac lesions in the young child. Such cases come indeed into the category of those incompletely treated by rest and therefore especially liable to heart implication. And why should rest, absolute recumbency, be so important in acute heart affections? We cannot still the heart, but we can lighten its burdens and lessen its restlessness. The mere difference between lying down and standing up to the healthy heart is 10 beats a minute or 600 beats an hour. How much greater may it not be to the heart irritated by acute disease? The pulse naturally quickens as the temperature rises. Hence by mitigating pyrexia we *cæteris paribus* rest the heart. It is generally held by pathologists that pyrexia lowers arterial pressure, but the conditions that attend rheumatic pyrexia, multiple joint inflammation and excessive metabolism with high density of urine would favour heightened arterial tension. Our alkaline and salicylate remedies reduce arterial pressure both directly and indirectly by stimulating skin and kidney function. So that the general remedies most applicable to the fundamental disease are at the same time specially suitable for the requirements of the local malady.

Are there any special remedies to be employed for the heart condition? There are but few. The group of heart medicines is not, as a rule, applicable until the case has fully emerged from the general disease and has become a single organ malady. It may be said, generally speaking, that digitalis and its class are useless in acute inflammatory heart affections and that aconite, with certain exceptions, is harmful. Mercury has long been abandoned with venesection and other violent measures. There are two forms of cardiac lesion, however, which may frequently be treated by moderate doses of opium with great advantage. They are peri- and myo-carditis, conditions often conjoined, the especial indications being pain particularly manifested in some (not all) cases of pericarditis and irregularity of rhythm, tending to tumultuous action with failing power, characteristic of myocarditis. The pain of myocarditis is never acute unless there be also pericarditis; it is rather a restlessness and an indefinable oppression written in the face and movements of children and described by adults. Small doses of opium at frequent intervals are of very great service in such cases, calming nerve irritation, lessening general restlessness, and so securing more rest to the heart.

Endocarditis in rheumatic fever affects the mitral valve most commonly, the aortic orifice much less frequently; the more complex mitral flaps stiffened, and with their opposed surfaces thickened by vegetations, permit of regurgitation, whilst the aortic valves, losing their flaccidity and being roughened by vegetation, are unduly salient during systole and so cause obstructive murmurs. Neither of these conditions call for, or respond to, at this stage any treatment additional to that already laid down for the dominant complaint. It is somewhat inadequately argued that salicylate of soda does not influence heart affections in rheumatic fever. This view is founded upon a double misconception. In the first place, the murmur or pericardial friction audible is a result of altered mechanism rather than an evidence of activity of lesion. Their continued presence does not show unchecked activity of lesion nor could they be expected to disappear like the fading blush over the rheumatic joint. More than this, cardiac rheumatism affects a part in constant functional activity, to which the term rest is only relatively applicable, and, further, the mild degree of daily pyrexia, which is often prolonged in

[1] Lecture I. was published in THE LANCET of March 26th, 189

[2] Collected Works, vol. iv., p. 347

endocarditis, is probably partly due to contamination of the blood-stream by sero-fibrinous material exuded from inflamed surfaces, which, although not septic, has yet become foreign through alteration by products of cell proliferation. After the third or fourth week the salicylates may be replaced by quinine and arsenic as remedies better suited to combat this phase of the malady. There are various considerations which emphasise the importance of more prolonged rest in cases of acute rheumatism accompanied by cardiac lesions. The difference is a striking one between ephemeral results of other inflammations in a joint or even in a fascial membrane and the same affection of a cardiac valve, the pericardial sac, or even the pleura. But this different result is well accounted for by the condition of unrest that in different degrees obtains in each of the three latter parts. This condition depends on automatic mechanism happily beyond our control, but, as pointed out in speaking of the acute phase, we can very materially lighten the labour of the heart and lessen the strain upon the valves by maintaining the body in recumbent repose. It is true that in the milder cases of endocarditis the inflammation may be mainly seated at, or even limited to, the lines of contact of the valves, the points of greatest strain, as has been pointed out by Moxon, Sibson and other authors, but in more severe cases the whole valve partakes in the inflammatory hyperæmia and is the more liable to become so involved the more it be subjected to premature functional strain. But for a considerable time after active inflammation has passed, a time varying much in different cases, a smouldering endocarditis goes on attended with a slight daily rise of temperature, so slight sometimes as to be ignored by the attendants, and yet during and beyond all this time absolute rest is necessary. The valves are softened and thickened by nuclear granulation tissue and new fibrous formation. They readily yield and become distorted under any increase of blood-pressure, whilst the nuclear tissue further develops into hard and contractile cicatricial tissue which fixes and further distorts the valves.

It occasionally, but not often, happens that after the lapse of a considerable time in severe cases of aortic or mitral endocarditis a slight affix or prefix to the systolic sounds may begin to appear. But it is much more common for patients to return to the hospital with a second attack of rheumatism, or for some other cause, and to then present evidence of a stenosis at the mitral orifice or an incompetence of the aortic valves which did not exist before. No doubt in some instances this may be an inevitable occurrence from natural changes of a cicatricial and deforming kind occurring in the new tissue of the valve consequent upon the primary endocarditis. But it is always aggravated by, and often entirely due to, premature strain upon valves softened and impaired by inflammatory change. The infrequency with which aortic regurgitation and mitral stenosis are met with in primary cases of rheumatic fever cannot fail to have impressed clinical observers, but the lesson to be received from this fact has not been duly learned. Dr. Sibson[3] points out that of 24 cases of acute rheumatism with primary endocarditis treated by a rigid system of rest only 1 gave evidence of aortic as well as mitral disease, whereas in 19 instances out of 127, or 1 in 6·7 cases, not so rigidly treated in this respect aortic regurgitation was present. But even Dr. Sibson did not point the lesson, for he only insisted upon the importance of maintaining rest for "a period of several days after the complete disappearance of the local inflammation of the joints." If it be true that aortic regurgitation and mitral stenosis, rarely met with in primary rheumatism, are the results of secondary changes in the valves caused by (1) strain upon the softened valves; and (2) by cicatricial deforming changes in them the first of these can be to a great extent prevented and the second to a great extent lessened and modified by maintaining the patient quiescent for a sufficient length of time. The exigencies of hospital routine, the pressure of perhaps more urgent cases, and the natural anxiety of the patients themselves to get home result in the discharge of rheumatic fever cases, even with heart complications, within a month or five weeks when perhaps another month's rest would add many years to the life estimate. A very bad lesson is thus taught to students. In private practice, in dealing with children and young people especially (and they are numerically by far the most important cases), it is not difficult with sufficient firmness in explaining the position to secure an adequate period of rest to allow of a complete subsidence of inflammatory change and a restoration of due resisting power in the weakened valve. At least two months after an attack of rheumatism involving the heart, and in some severe cases from four to six months, is necessary for this purpose. A minute attention to the temperature chart and pulse and careful investigation of the cardiac sounds will be the chief guides in regulating the rest treatment of these cases. For a further ill-defined period of months very gradual and careful return to an amount of activity suitable to the case must be permitted. Under this system of management very striking results—in many instances practically complete cure—will be obtained, especially in children and young people. It was taught in my student times by the greatest of living clinical teachers that children grew into rather than out of heart disease. I have been surprised since to meet with many instances to the contrary, and I venture to think that the opinion was based largely upon the experience of the Children's Hospital dealing with poor children who were not maintained long enough at rest and who returned later with the results of the deforming endarteritis.

It would be tedious were I to do more than mention that in the subject of a severe peri- or myo-carditis allowed to move about too soon the softened heart walls yield and the fibro-nuclear changes proceeding tend to render such yielding permanent. I have restricted my remarks so far to rheumatic cases since they constitute the vast majority, if not all, of the cases that occur and at least of those that are under our control, and such other cases as may be met with from acute overstrain, scarlet fever, or other fevers would fall under the same lines of treatment. I have pointed out that the cardiac group of drugs is of little value in the early stages of heart disease. Our object is to promote resolution and the healing process. Our primary object is not at this stage to increase heart power, which would, indeed, only antagonise our views of easing valve function. As the acute rheumatic features fade general anæmia and cardiac fatigue often present themselves for consideration in treatment, and such drugs as arsenic, strychnine, and iron are strongly indicated. At this stage, particularly in pericardial and in some endocardial cases, the employment of moderate doses of iodide—e.g., a five-grain dose of combined iodides of soda, ammonia, and potash—three times a day has seemed to me to be of some advantage in helping the resolution of the inflammatory thickenings. A due regard would, however, be paid to the toleration of the iodide and it would in all cases be combined with some tonic, such as strychnia, arsenic, or iron. It is at this time, at the end of the pyrexial interval, that the question as to the usefulness of digitalis comes in. A quickened and irregular rhythm, one or both arising from want of power to deal with a valve defect, is the particular indication for the employment of digitalis. The drug is of little, if any, use and may do harm if the quickened action be the result of inflammatory irritation. Hence, where the irregularity is attributable to peri- or myo-carditis the drug is useless; when the soft low-pitched murmurs with raised temperature indicate active changes going on in the valves digitalis should be withheld unless positively demanded by a failing ventricle, the special signs of which would be congestion of the lungs, enlarging liver, œdema of the limbs and very scanty urine. But these symptoms are only present in very grave cases. In the majority of instances during active valve changes, as I have said, digitalis is not needed. I shall refer later to the digitalis class of drugs in speaking of chronic heart failure. In some cases when the patient begins to get about it may be necessary to combine for a time moderate doses of digitalis not exceeding 20 or 30 mimims a day with the general tonic in order to maintain the tone of the newly acquired hypertrophy commensurate with the valve defect.

In the selection of change of air for convalescent cases of endocarditis the first consideration is freedom from wetness of subsoil. Seaside towns are generally preferable to country districts on account of the ground being well drained, the walks easy, the sunshine abundant, and facilities in the way of bathchair exercise, sunny balconies, &c., greater. I may here mention a matter of extreme importance to which I shall allude again in speaking of ulcerative endocarditis and that is the necessity of perfect sanitation bearing in mind the susceptibility of the recently inflamed valves to bacterial invasion. In cases in which the lesions are grave, the progress tedious, and the necessity for rest prolonged,

[3] Ibid., vol. iv., p. 384.

general nutrition may be maintained by judicious massage such as to stimulate muscle nutrition and facilitate venous circulation.

On being consulted about a case of valvular heart disease the physician has, of course, first to make an accurate diagnosis, not only as to the particular valve defect in the heart, for in that a diligent fourth-year student could equal the most experienced, but to form a just estimate of all the conditions present and to decide what are the essential factors in the diseased state, in what symptoms or group of symptoms is the objective for treatment to be found. Secondly, having arrived at this point the physician's further deliberations mainly turn upon whether (*a*) the case is a suitable one for the employment of remedies of the digitalis order and to what extent shall they be pushed; (*b*) does the case require complete rest? or (*c*) what degree and kind of exercise will be beneficial or may be permitted? and (*d*) the general state of the patient, his nervous system, condition of nutrition, blood state, &c., will have to be considered as well as those special functions of kidney and liver and the dropsical state which are a part of the perturbed circulatory condition. It is of course quite unnecessary for me here to discuss any points of physical diagnosis and I will at once pass on to a brief consideration of the properties of digitalis upon which we have to rely in practical therapeutics. There is no drug so familiar to us as digitalis and there is no one drug which has added so many years to the sum of human life. It may also be said that the difference between the effects upon the heart of digitalis in skilful and unskilful hands is as great as the difference in the effect of the curb rein on a restive horse under the same circumstances. And although most that one can say about the drug and about the small group which it represents is but trite and commonplace, and must especially appear so to so experienced an audience as I now address, there are one or two points about the action of the drug an imperfect knowledge of which for the moment rather embarrasses than strengthens the hands of the practitioner in its use.

What are the attributes of digitalis upon which we rely in our daily practice? 1. Digitalis slows the heart's action concentrating the force expended upon fewer and more efficient contractions. 2. It is stated that digitalis also directly stimulates the heart's action (Williams).[4] The more obvious effect clinically is rather a concentration of force and gathering of small, irregular beats into efficient contractions. 3. It is generally agreed that the drug affects the cardio-vascular muscles directly. Although the ultimate plasmic distribution of the vagus in the heart is presumably the special sphere of its influence it is highly probable that its effects extend also to the nerve centres. It is difficult otherwise to explain the secondary effects of digitalis, especially its vaso-motor effects and the peculiar nausea, resembling that of sea-sickness, which often proves so important a result of its continued use. 4. Digitalis contracts the arterioles and this effect, in combination with the increase in the contractile force of the heart, raises the blood-pressure in the arteries. 5. The effect of the contraction of the arterioles is to maintain the blood-pressure between the cardiac beats. This effect of digitalis in contracting the arterioles has been known for thirty years, and as Dr. Lauder Brunton was amongst the first to experimentally prove it so he has by a series of experiments made with Dr. Tunnicliffe quite recently maintained the importance of arteriole contraction in sustaining the blood-pressure between the beats of the heart.

Some timidity has arisen in the use of the drug lest by increasing arterial resistance and at the same time stimulating ventricle action it should lead to cardiac overstrain and exhaustion. The possible occurrence of such strain and the detrimental effects arising from it must, of course, be taken into consideration in prescribing digitalis in certain cardiac conditions, but its action on the vessels is really one of the most valuable attributes of the drug supplementary to its cardiac effect. It must be remembered, as shown in both series of Dr. Brunton's admirable experiments, that the blood-pressure is maintained in the arteries in the intervals of systole; that is to say, that under digitalis influence, after closure of the aortic valves, the aortic resilience more gradually effects the emptying of the arteries through the capillaries. Now this effect is of great clinical importance. 1. It maintains the blood longer in the arteries and hence favours the more effectual irrigation of organs, particularly of the secreting organs. 2. By the better distribution of the ventricle force venous congestion is avoided and the venous current more sustained, the heart has less immediately to overcome venous inertia, and the less bulky and stagnant venous stream is more readily respondent to *vis a fronte* influences. 3. Provided always, however, that corresponding with a longer maintained arterial pressure the digitalis produces a slower heart beat. For it is obvious that if with increased slowness of distribution of cardiac force we have no corresponding diminution in frequency of the cardiac contractions we may get the resistance mounting up to a dangerous pitch. From clinical observation I should have said that in medicinal doses digitalis affects the heart before the vessels, and so the proportionate conditions of its effective and beneficial action are in suitable cases secured, although experimentally with the drug introduced directly into the circulation in full physiological doses the vessels have been found to react sooner than the heart. 6. Pushed beyond its therapeutic limits digitalis appears to paralyse the cardiac vagus, the heart's action becomes rapid, peristaltic and finally stops in systole. The failure in heart power seems to arise from inefficient and finally extinguished diastole and the arterioles generally maintain their contraction to the end.

In considering the cases of cardiac disease, and for the moment speaking of valvular disease of the heart, the first thing to remark is that there are to be observed a type of pulse and heart rhythm adapted to, and characteristic of, each form of valvular disease of the heart which may be regarded as normal to that lesion, and it should be the object of the physician to consider whether the rhythm of beat and the result of estimated cardiac force as registered by the pulse are in full accord with the altered circumstances produced by the valve defect. How far the pulse varies from that of health is a preliminary part of the diagnosis, but, the diagnosis made, the question for treatment is whether the character of the pulse is normal to the lesion found, or does it vary from what it ought to be under the circumstances, and to what is the variation due. On thinking the matter over in this light we perceive that in the therapeutics of cardiac affections after the acute stage we do not treat the valve defect, but we treat the heart, whilst it will be remembered that in thinking over the treatment of cardiac affections in the acute stage we found that our measures were not directed to the heart so much as to the affected valves or pericardium, and incidentally in this latter section of acute cardiac affections we found but little employment for drugs of the digitalis order and that in many cases their employment was positively to be avoided.

There has been much dispute as to whether digitalis—and in mentioning digitalis I speak for the whole therapeutic group—should be used in the treatment of aortic regurgitation. But in the most typical cases of aortic regurgitation the patients are very well, they may be quite unconscious that they have anything the matter with them, they lead active, even athletic, lives and will be shocked, on presenting themselves before an insurance society, at being refused or very greatly surcharged. Except for accidents in the way of functional disturbances of reflex origin, vaso-motor angina, to which they are very liable, and sudden or gradual overstrain, to which their unguided energies tend to lead them, these patients, if they follow rationally prescribed lines of conduct, may go on very well until the degeneration period of life. They may, like other people, require a tonic from time to time, but so long as they present the most characteristic marks of their special lesion they do not require digitalis. Now the conditions of good compensation are steady, regular, forcible ventricle beats—an increase in the capacity of the left ventricle to accommodate a larger measure of blood in diastole and a vigorous and truly muscular hypertrophy to enable the ventricle with little supplementary support from the aortic valves to propel the blood through the capillaries and maintain the venous current. Under these conditions, which are faithfully recorded in the steady, regular pulse, with a strong, abrupt beat, rapid subsidence and low tension of artery, digitalis is not wanted and a powerful drug when there is no indication for it cannot but be harmful. In all cases, however, of aortic regurgitation which are not interrupted in mid-career by some of the accidents to which I have alluded the time comes when the employment of digitalis is of the greatest value. What are the indications for its use? In one

[4] Quoted with acceptance by Lauder Brunton, Journal of Physiology, vol. xx., 1893, p. 357.

word, they are the symptoms of commencing failure of the left ventricle fully to respond to the heavy call upon it, provided that failure be under conditions otherwise normal to the disease. It may be, for instance, that the ventricle is temporarily overburdened by the results of some nervous, dyspeptic, or gouty storm reflected upon the small vessels and causing a measure of high tension to supervene upon that relaxed condition of the arterial system which is normal to aortic regurgitation and which is probably a natural compensatory effect, induced by the relaxing influence of the depressor nerve in response to the increased pressure within the ventricle. Under the conditions of high arterial tension thus induced it would be very faulty practice to give digitalis; any result it might have in forcing increased work out of the already willing muscle would be necessarily at the expense of later exhaustion, apart from the tendency of the drug itself to increase tension. Obviously under these conditions a mercurial and saline or such other treatment as may especially meet the cause of the increased arterial resistance is the first measure in combination with a little extra quietude and to be followed by a tonic calculated to restore the fatigued heart. I have already dealt with the treatment of acute high tension accompanied by anginal symptoms in aortic disease. It has been said that the heart in aortic regurgitation is sometimes too vigorous, its hypertrophy excessive, and that it is necessary to use drugs of the aconite order to lessen ventricular expenditure. I confess I have never recognised a case of the kind and that in my experience unduly laboured heart's action in this disease is always to be explained by reflected functional disturbance or increased arterial resistance. The one thing we have to look to in aortic regurgitation is the maintenance of heart power, and any sign of over struggle is rather to be met by measures calculated to diminish peripheral resistance. Irregularity in the heart's action, a want of precision and sharpness in the character of the pulse, increased displacement of the apex beat to the left, and extended impulse upwards, the occurrence of irregular smaller beats as marked in the pulse and appreciated at the heart, the supervention of a soft systolic bruit over the mitral area, extension of the cardiac dulness to the right, and finally the almost complete replacement of the normal, regular, strong, slow, collapsing pulse and simple hypertrophic heart's action, normal to aortic regurgitation by a rapid heart's action irregular in force and frequency, with a corresponding small pulse, having the characters of mitral rather than of aortic disease,—such are in gradation the ingravescent signs of ventricle failure in aortic regurgitant disease and the increasingly imperative indications for the employment of digitalis in its treatment. As the above signs develop we observe important symptoms of the changed arena of struggle from the left to the right heart territories of the circulation. Congestion râles appear at the bases of the lungs, fulness to enlargement of the liver, œdema of the extremities, and scantiness of the urine. There is no doubt that the symptomatology of failing heart in aortic regurgitation concentres round the fact that with a yielding ventricle systole becomes incomplete and an increasing amount of residual blood is left behind in the ventricle, necessitating presently a supplementary intermediate contraction, until finally little better than a disordered cardiac peristalsis ensues incapable of maintaining due arterial pressure, the blood gathers on the venous side, and the right ventricle embarrassed by the counter blast through the relaxed mitral orifice and unassisted by any aspiratory influence on the part of the left ventricle in its turn begins to fail.

Under these conditions the peculiar effects of digitalis are precisely called for to slow the action of the heart, to render its contractions more complete and regular, and thus to check the gathering of residual blood in the ventricle and restore the efficient application of the mitral flaps by approximating their attachments. I have before remarked that clinically digitalis appears to influence the heart before the vessels. There is, indeed, in all probability proportionate relationship between its effects upon these two sections of the circulation. If as we believe the drug acts directly upon the cardio-vascular muscle we may safely infer that the bulk of the muscle concentred in the heart being more than equal to that of the muscle distributed in the vessels the predominant effect should remain with the heart. We must not, of course, push this argument too far, it is at least in favour of what I believe to be an observed fact in aortic regurgitant heart failure—viz., that digitalis rarely affects the vessels prematurely or disproportionately, but on the contrary by improving arterial tone it does no more than prevent that rapid emptying of the arteries, which although normal to aortic regurgitant disease requires a corresponding rapidity or suddenness of ventricle contraction to maintain a sufficient arterial pressure for vital functions which is very exhausting to the enervated and failing hearts under consideration. The maintenance of a strict recumbency is of course essential in the grave cases I have described and with a suitable dietary the heart soon begins to respond to a steady daily administration of from thirty to ninety or more minims of tincture of digitalis or an equivalent preparation with proper adjuncts in the form of an occasional mercurial and saline. With the increasing efficiency of the *vis a tergo* the blood-pressure in the arteries rises and with the similarly increased efficiency of the *vis a fronte*—for the drug not only indirectly helps but directly stimulates the right heart as the left—the venous current is hastened, the pulse will begin to steady, and at about the third day the urine will increase in quantity, the signs of venous congestion begin to diminish, the pulse to assume more and more its proper aortic characters, and the patient gradually recovers to a point short, however, of that degree of health and heart-power he before enjoyed.

Thus again and even again have we most of us seen patients with heart failure in aortic regurgitation restored, put on their legs by the action of digitalis. Having once passed through this ordeal they can never be said to be entirely independent of the drug. I have put the extreme case, but it is needless to say that by watchfulness in recognising the earlier phenomena of heart failure, which I enumerated as nearly as possible in chronological order, and by the timely employment of an occasional course of digitalis, the more desperate symptoms may be long postponed. One of the greatest difficulties in practical medicine is to decide when to omit treatment, and this difficulty is particularly felt by many in regard to digitalis. I shall allude perhaps more fittingly to this point later and will content myself now with the remark that the general condition of the patient, his anæmia or otherwise, his general nerve tone, the due activity of his other functions must be carefully watched and regarded and the use of other remedies accordingly employed with a mitigation or suspension as the case requires of the digitalis treatment. The final word with regard to the treatment of aortic regurgitation would seem then to be—await the distinct indication of altered pulse characters, even ascertain whether there are not general conditions of over-fatigue or strain or impaired general tone from anæmia or other debility before giving digitalis, and having commenced with it pursue the treatment boldly and steadily and look under its influence and as a sign of its success for a return of the characters which are normal in the pulse of this disease.

With regard to aortic stenosis the same argument holds good—that is, that as soon as the normal pulse of this affection—a small, rather slow and regular pulse—becomes replaced by irregularity and frequency, accompanied by the usual signs of failing compensation, digitalis is needed. Aortic stenosis is, indeed, a rare form of cardiac disease, although so-called aortic constrictive murmur is one of the most common of the morbid sounds of the heart. Any roughening of the orifice, any want of proportion between the orifice and the calibre of the aorta beyond any undue salience or rigidity of the valves, even with a dilated orifice, will beget a systolic murmur. I do not think that with regard to the use of digitalis in this affection I have anything more to say. So long as the heart is beating quietly and regularly nothing but harm can come from the use of digitalis, with irregularity and disorder nothing but good, provided it be carefully watched and mitigated with returning regularity. An important principle underlying the whole question of treatment of cardiac diseases by digitalis is that laid down by the late Dr. Herbert Davies who, with the coöperation of Professor Haughton, established with at least approximate success the proposition that equal volumes of blood are synchronously propelled from the cavities on the two sides of the heart. We have seen that in aortic regurgitation a certain degree of dilatation of the left ventricle is normal; this is to accommodate a certain amount of residual blood equivalent to the back flow from the aorta which is an addition to, and has to be returned with, the normal output. When with increasing dilatation this residue accumulates (or if in unpreparedness of the ventricle an

when surprised by a sudden injury to the valves it cannot be accommodated) embarrassment telling backwards on the pulmonary side commences.

In mitral stenosis the strain to effect this equilibrium of the two circulations falls upon the right ventricle, which, assisted by the left auricle, has to supply the left ventricle with sufficient blood notwithstanding the narrowed mitral orifice. In the pure funnel form of mitral stenosis, a disease which is, I am convinced, often of congenital origin, the right ventricle and left auricle undergo corresponding hypertrophy and increase of capacity and are able without artificial aid to maintain the circulation, sometimes for the first forty or five-and-forty years of life. The features of mitral stenosis are a high pulmonary and a low systemic blood-pressure, a regular, slow pulse, a tendency to pulmonary congestion, and systemic anæmia. Whilst these conditions are maintained digitalis can do no good; the right ventricle is in full work, the left has got scarcely work enough to do, the intra-pulmonary pressure is already near the point of strain, and the prolonged diastolic pause natural to the lesion is precisely adapted to the needs of the slowly filling left ventricle. Any constriction of the systemic arterioles would be disastrous under such conditions, as was seen in the case I related of mitral stenosis with vaso-motory constriction of vessels and pulmonary hæmorrhage. The first indication on cardiac distress arising in mitral stenosis would be to relieve the right heart by unloading the venous system by direct venesection or intestinal and hepatic derivatives and a restricted diet and treatment of pulmonary complications as the urgency of the symptoms might require. But when, these conditions being satisfied, the pulse still remains quick and irregular and the right heart embarrassed, the employment of digitalis is certainly indicated on the same principle as before. And in the presence of cardiac need we may, as a rule, disregard considerations of raised arterial tension, since, as I have urged, the first and predominating influence of the drug is upon the heart. The moment, however, the cardiac action is restored to regularity we must again remember the arterial effects of the drug and, endeavouring to maintain without increasing its effects upon the heart by greatly mitigated doses, to watch for and avoid any undue action on the vessels.

In mitral regurgitation with commencing or established heart failure we find all the conditions calling for the beneficent action of digitalis and the mere presence of a mitral murmur is often regarded as an indication for the use —it may be the very guarded use—of the drug. It must be remembered that I am not speaking of acute cases, nor would digitalis be suggested by the mere presence of a mitral regurgitation in the senile heart, of which it is almost a characteristic and often a very advantageous factor. Nor again in those cases in which the regurgitation occurs as a compensatory safeguard in overstrained ventricle from chronic high arterial tension is it often desirable—except with much caution—to prescribe digitalis. It is in commencing heart failure in chronic mitral lesion from rheumatic endocarditis that digitalis is so valuable. What are the features of this state? A quick, small pulse is normal to mitral regurgitation, and even some irregularity of rhythm or force is of no great moment, although even now short tonic courses of the drug may be useful. But when irregularity is a marked feature, when a few beats are large and turbulent, to be followed by several small beats, when the pulse no longer corresponds in number with the cardiac contraction, when the heart itself shows signs of hypertrophy and extending dilatation of both ventricles with dulness extending upwards over the conus and left auricle, when the neck veins become full, fill from below and pulsate, the liver enlarges, the cellular tissue becomes dropsical, the lungs congested, and the urine scanty. With these symptoms and signs we have with increasing urgency the conditions calling for digitalis. These conditions begin, it will be observed, with the pulse and heart characters which replace those which are normal to other forms of cardiac disease when failure is commencing and digitalis is called for. This fact about mitral disease is to be noted in prognosis. Whilst symptoms of heart failure are earlier in appearance in mitral disease of any gravity they are perhaps longer amenable to treatment, the considerable reserve capacity of the left auricle and the relative shortness of the pulmonary circulation being favourable for a longer struggle against the valve defect, but that struggle begins to be serious at an earlier date. On the other hand the accidents of mitral disease are fewer than those of any other cardiac disease, sudden death from syncope, angina, or cerebral embolism being common both in aortic regurgitation and mitral stenosis, very rare in mitral regurgitation, but with these two diseases and with aortic stenosis it is—with equal relative gravity—longer before the heart mechanism fails. A congestion of the pulmonary and venous system and an anæmia of the arterial system are the underlying factors in this condition as in mitral stenosis. But the difference is that in mitral regurgitation the congestion is all backward, each blood-thrust of the right ventricle is met by a counterblast from the left, the left auricle is not protected by its valve from invasion backwards, and cannot therefore efficiently coöperate with the right ventricle, and the cusps of the pulmonary valve have to take up in part the function of the mitral valve. Of course, there are cases and cases of mitral regurgitation. In some the leakage is so slight as to cause no inconvenience. The skilled practitioner can discriminate to a nicety as to the gravity of the case by the degree with which the first sound is replaced by murmur and by estimating the relation between expenditure of force by the heart, and the result affected in the pulse showing the degree of waste in the mechanism.

I cannot, Sir, but here recall the heroic assiduity of our late Fellow and Vice-President, my illustrious colleague, Sir Richard Quain, who when mortally ill brought his last work before the Royal Society in an endeavour to explain the much-debated mechanism of the first sound of the heart. Any conclusion arrived at by so acute and thoughtful an observer must command our reverent respect. It is difficult, however, except on the hypothesis that the closure of the mitral valve contributes to the first sound, to explain the great value in diagnosis of the degree of replacement of that sound by murmur as an estimate of the degree of imperfection of the valve and the consequent gravity of the lesion.

The most common mistake that one observes in the use of digitalis is that too large a dose is prescribed at first, which tends to premature arterial contraction and cumulative effects. Then with the appearance of these physiological symptoms the drug is stopped and some other medicine substituted until the pulse again calls for its administration. In this haphazard way of using digitalis the heart is never held in good control. In exceptional cases, where there is urgent need to push the drug, digitaline is best used subcutaneously. In ordinary cases a dose of 10 minims of the tincture every four hours, or 15 minims every eight hours, or 5 minims every waking hour is sufficient. Thus given, the patient being at rest, it generally takes about three days before the pulse is under control and the urine begins to increase. When its decided effects are thus gradually developed the drug should be steadily continued in doses calculated to maintain its effect. With ordinary watchfulness there is no risk whatever, timely warning of excess is given by the pulse, which having become slow begins to exhibit small intermediate beats and especially a tendency to go in couples. This is always a sign to reduce the doses or to omit for a few hours. The sickness that occasionally too often supervenes with digitalis is most troublesome. An occasional mercurial will sometimes prevent it, a change to digitaline in equivalent doses may be tried, or a tumbler of very hot water taken occasionally. In some cases it is not to be overcome except by omitting the drug; the patient is usually well under the influence of the drug before this symptom appears, in which case a small dose of digitaline by the mouth or hypodermically may be sufficient to maintain its effects on the heart.

In speaking of digitalis I have regarded that drug as representing the whole therapeutic group. Digitalis is to my mind so far in front of all the others in efficacy that in critical cases I should never think of prescribing any other member of the group before it. Strophanthus comes next to it in usefulness and in physiological experiment is even more powerful. Clinically one is not so well satisfied with it, and this may possibly be prejudice, but I have had doubts about its stability in prescriptions. It causes the same troublesome nausea. The one reason for its use is that it affects the small vessels less; this gives it an advantage in some cases, particularly, perhaps, in carrying on the effects of digitalis in convalescent aortic regurgitant and mitral stenosis cases. But, as I have endeavoured to point out, under most conditions calling for its use this very action upon the arterioles is one of the valuable attributes of

digitalis and explains possibly its superiority over strophanthus. I frequently, however, combine the two drugs when I want to secure an increased cardiac effect without using digitalis in doses large enough to contract the vessels too much. Convallaria comes next as a cardiac tonic in mild cases, useful for timid women who are terrified at foxglove and arrow poison, but take kindly to the humble lily of the valley; I have only very occasionally used sparteine. One may observe that the earliest sign of amendment in cardiac failure is an increased flow of urine. This rarely occurs until a perceptible influence has been obtained over the pulse and it corresponds with an increased fulness of the arterial system, an improved blood-pressure and a lessened venous stasis. A somewhat analogous relief of the stress of symptoms will often be observed with the commencement of dropsical effusion, provided that effusion of course be limited to the cellular tissue and peritoneum. The peculiar restlessness and discomfort that precedes the onset of dropsy is sometimes very remarkable and the dropsical effusion should rightly be regarded as one of those compromises of nature which enable the vital machinery to go on a little longer. Dropsy is primarily due to a leakage from the congested capillaries into the cellular tissue. It is also due to a retarded removal of the fluids by the lymphatic vessels.

From a therapeutic point of view the osmotic circulation in the cellular tissue and serous and mucous cavities is scarcely less important than the vessel circulation discovered by Harvey. The interchange between the two circulations amounts normally to many pints in the twenty-four hours and cellular tissue and lymphatic vessels conduct a considerable share of it. The current of lymph is of extremely low pressure and no doubt largely depends upon the aspirating effect of the blood stream in the veins into which the ducts enter as well as the *vis a tergo* derived from the blood-pressure in the capillaries. It is thus a result of the difference between the capillary blood-pressure and that of the veins near the heart and it is further promoted by contraction of muscles, respiratory aspiration, and contraction of muscular coats of lymphatics. A very slight backward pressure in the veins will embarrass it. In dropsy not only is there venous retardation in the capillaries encouraging excessive exudation, but the retarded current in the great veins is a further obstruction to removal by the lymphatic vessels. Hence a considerable collection of fluid, even many pints, may be removed from circulation. The immediate effect of this removal is often a very decided relief to the patient's distress. The occurrence of dropsy may thus sometimes afford time for the readjustment of the circulatory balance in the heart and vessels. But if with the help of remedies this does not take place and the dropsy advances the question comes when to interfere. The answer is not until it is estimated that the pressure in the cellular tissue becomes great enough to equal or exceed the pressure in the capillaries. At this point interference becomes imperative and the fluid should be removed by the employment of Southey's tubes, incisions, or simple punctures under the strictest antiseptic precautions. I can remember when they were from neglect of such measures invariably followed by erythematous or erysipelatous inflammation and more or less cellulitis. Very striking instances of long abiding relief are met with from time to time from this treatment. I might quote a very remarkable case in this connexion illustrating a point which I have observed—viz., that dropsy occurs in some cases in the absence of heart phenomena which would appear sufficient to produce it. A woman, of about fifty years of age, had been under my observation for some few years for most intense chronic asthma with emphysema and recurrent attacks of bronchitis. Her condition at many times seemed almost hopeless, but the one redeeming feature about her was the heart's action, which remained steady and well sustained through her worst attacks; although there was undoubtedly some dilatation and hypertrophy of the right side of the heart there was no sign of heart failure. Towards the end of a bad summer in 1896 her legs began to swell and as her distress increased with the cold weather they filled up and by December the thighs and abdominal walls were greatly distended. She was in other respects so ill at this time that I hesitated to tap the legs until they became too prominent a factor in her distress. Even now, although the heart's action was feeble, it was neither irregular nor very quick and there were no murmurs. She was placed in a chair and by means of four Southey's tubes 20 pints of fluid were withdrawn in the course of 52 hours. Now it is remarkable that there has never been any return of the dropsy although she has not been free from bronchitic attacks; the limbs are perfectly slim and natural, without a trace of œdema. The heart's action is as well maintained as before. It only partially failed for a few days after the removal of fluid. I may say that this patient has never been able to take digitalis or any drug of that series with advantage and it has never been prescribed for her except for short times at rare intervals and in very small doses. I should regard the retarded venous return from the great emphysema obstructing the lungs, in combination with an over-burdened right heart, as responsible for the dropsy, but the case is one of a few I have seen of the kind, difficult satisfactorily to explain. It is possible that this may be an unusually prominent example of the effect of a mechanism that has more to do with dropsy than has been generally allowed—viz., obstructed venous return in the chest from great emphysema and dilated right heart, telling upon the lymphatic current in such a manner as to lessen the readiness of its escape into the innominate vein and so to hold in abeyance the share taken by lymphatic absorption in the removal of dropsical fluids.

The Goulstonian Lectures:

OBSERVATIONS ON THE PATHOLOGY OF THE KIDNEYS.

Delivered before the Royal College of Physicians of London on March 15th, 17th, and 22nd, 1898,

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(*From the Laboratory of the Brown Institution.*)

LECTURE III.[1]

Delivered on March 22nd.

URÆMIA.

MR. PRESIDENT AND FELLOWS,—Having discussed in the last lecture the results of nephrectomy in animals (dogs) I propose to deal to-day with some of the phenomena of uræmia as seen clinically in renal diseases. Uræmia may perhaps be defined as a toxæmia which is apt to supervene either during the course of, or as a terminal phenomenon in, renal diseases or disorders. Although it may occur in any form of renal disease it is, as is well known, most frequently seen in the young and more especially, perhaps, in those forms of chronic renal disease, such as certain varieties of contracted kidney, where the quantity of kidney substance is very greatly reduced in amount. Although uræmia is sometimes seen in what may be called the ordinary granular kidney (the raspberry kidney) associated with general arterial degeneration, yet it is not the natural termination of this malady. The more characteristic mode of death is either from cerebral hæmorrhage or else from secondary cardiac disease, the heart failing as a result of the long-continued increased pressure to which it has been subjected. Although uræmia may occur in cases of granular kidney associated with extreme arterial disease in the middle-aged or elderly, uræmia, and more especially acute uræmia, is peculiarly associated, in my opinion, with the contracted white kidney, which may probably arise either as an independent renal affection or secondarily as the sequel of some other form of nephritis, acute or chronic, such as, for instance, the so-called large white kidney. It is probable that several forms of renal disease are included under the terms "small white," or "contracted white," kidney, and certainly different specimens of this form of kidney differ greatly in their microscopic if not in their macroscopic appearances. In all forms of this disease, however, the amount of kidney tissue, and more especially of cortical tissue, is very greatly

[1] Lectures I. and II. were published in THE LANCET of March 19th and 26th, 1898, respectively.

diminished and, speaking broadly, there is frequently a greater reduction in the amount of kidney tissue in this form of renal disease than in most if not in all cases of the true granular kidney. Such kidneys are small, weighing together probably less than seven ounces, sometimes as little as five or even three ounces. The capsule is thickened and on stripping tears the kidney substance but little, and leaves an exceedingly granular surface, the granulations being large and prominent. The cortex is greatly diminished in width and is of a pale-yellow colour or may be mottled; this appearance is seen both on section and externally. The medulla varies but is usually red and congested. The fat in the renal sinus is prominent. The condition of the vessels varies; sometimes there is extensive endarteritis, at other times this is not so conspicuous. Such a kidney is familiar to all pathologists. It is remarkable that although the appearances just described are fairly constant yet the state of the cardio-vascular system in these cases varies; usually there is cardiac hypertrophy and the other well-known vascular lesions associated with high tension, but cases are seen where although the kidneys conform in all respects to the description just given, yet neither during life nor after death are there any marked and obvious signs of the usual accompanying cardiac and arterial changes. I have seen cases where the kidneys were quite small, weighing together but from five to six ounces, and where post mortem cardiac hypertrophy was either absent or very ill-marked. Usually, however, it is a marked phenomenon. The type of kidney just outlined can probably be recognised during life owing to both the clinical course and the composition of the urine being peculiar and distinctive. The urine is dilute, the specific gravity is low, and the quantity is either about the normal or it is increased. It is in my experience exceptional for it to be seriously diminished and it is most usually distinctly above the normal. These urines contain a considerable quantity of albumin, thus from one-sixth to one-third would probably be a fair estimate for the majority of cases. Clinically, I would say, such cases are characterised by the rarity of the occurrence of dropsy and the frequency of the presence of albuminuric retinitis, and most important of all by the fact that the patients die from uræmia, and usually from acute uræmia. I believe it is exceptional for cases presenting this clinical picture and characterised anatomically by the kidney lesion described above to terminate by the other complications of Bright's disease, such as dropsy, secondary inflammations, cerebral hæmorrhage, &c. These cases not only usually succumb to uræmia, but they tend to be associated with a particular variety of uræmia—namely, acute uræmia or even so-called fulminating uræmia, the *urémie foudroyante* of the French. Although this form of Bright's disease is, in my opinion, peculiarly associated with uræmia, yet acute uræmia occurs under other circumstances and more especially occasionally in acute Bright's disease and after the surgical exploration of the kidneys where these organs are diseased, as, for instance, where pyelitis is complicated by chronic Bright's disease or by waxy degeneration. Exploratory nephrotomy may, and not uncommonly does, under such circumstances lead to fatal uræmia.

Eclampsia is a variety of acute uræmia, but in some ways this affection is quite different from the uræmia seen in renal cases and need not be further considered here.

Chronic or subacute uræmia or gastro-intestinal uræmia, as it is sometimes called, is probably more especially associated with that form of chronic Bright's disease which is accompanied by dropsy and where the kidneys are not only not greatly diminished in bulk but where these organs are larger than natural and come under the general description of large white kidneys. Chronic uræmia is also seen in other chronic destructive renal diseases, as, for instance, in cystic kidneys, and more especially perhaps in the so-called "consecutive nephritis" of the surgeon where the kidneys may be riddled with abscesses.

The form of uræmia described by Sir William Roberts as occurring in cases of obstructive suppression is so well known that little need be said as to its main features. It is undoubtedly very characteristic of cases of calculous suppression, but it is not, I believe, limited to these or even to cases of obstructive suppression, as I hope to show. The phenomenon seen in these cases of obstructive suppression may perhaps be termed "latent uræmia," as all the most obvious symptoms of uræmia are conspicuous by their absence, as pointed out by Sir William Roberts. Latent uræmia—that is to say, a condition where the patient remains for many days quite conscious, with no coma, convulsions, or dyspnœa, but where myosis, fall of temperature, occasional vomiting, and towards the end slight and rare twitchings of the voluntary muscles and perhaps slight drowsiness, may be present—has occurred in my experience in the following variety of cases: (1) calculous anuria and other varieties of obstructive suppression; (2) in the case already alluded to in Lecture II. and published in detail in the *Journal of Pathology*, where owing to endarteritis and thrombosis of the renal arterioles the entire cortex of both kidneys was necrotic; and (3) in a case where as the result of inflammation of a sacculus of the urinary bladder suppression ensued, and this notwithstanding the fact that the kidneys were not greatly diseased. It was most remarkable to see that in all these three different conditions the clinical symptoms were precisely similar and they were all regarded during life as typical examples of obstructive suppression. In the calculous cases this was the case but in the others the conditions were very different. In the one the patient practically had no kidneys, as, owing to the vascular lesion, thrombosis of the arterioles, the circulation must have been completely arrested, and in Case 3, although the kidneys were present and were apparently healthy and there was no obstruction to the ureters, yet there was complete suppression. It is unnecessary to describe the symptoms seen in the cases of calculous anuria as they are now so well known, and it will suffice to state that the longest duration of life was nine days and the shortest five. It will be, however, necessary to describe shortly the other two cases where the symptoms during life were characteristic of calculous anuria but where the post-mortem examination showed no such condition.

A woman, aged thirty-six years, was admitted into University College Hospital on March 3rd, 1896, owing to inability to pass urine. The patient was quite well until Feb. 28th, on which day she was delivered of a dead full-term child. After her confinement she was sick once and she complained of headache and a feeling of slight drowsiness which had remained much the same till the day of admission. There had been no fits and no muscular twitchings, and the patient stated that she had passed no urine since her confinement with the exception of two drachms drawn off by catheter on March 2nd. She had had no previous illness, and there was no history of any swelling of the legs or any attack of lumbar pain. On admission the patient was perfectly conscious and rational and could answer all questions clearly and intelligently; she had no headache or sickness but she complained of thirst; her temperature was 98° F. and there was no œdema. On March 4th the patient remained in the same condition; the temperature fell to 97·8° and no urine was passed. On the 5th she was weaker but quite conscious and intelligent and the temperature reached 95·4°, and one and a half drachms of urine containing a trace of albumin were drawn off. On the 6th the patient was still quite conscious, there had been no convulsions, and no vomiting; she was decidedly weaker and the highest temperature was 96·4°. No urine could be obtained on catheterisation. On the 7th she was still quite conscious and rational and she died suddenly and apparently from failure of respiration. On post-mortem examination no urine was found in the bladder or in the pelvis of either kidney and there was no obstruction to the ureters. The two kidneys presented the same appearance and weighed 7½ oz. each, and it will be sufficient to say here that the entire cortex of both kidneys was of a bright buff colour and necrotic. The convoluted tubules throughout the cortical substance were found to be necrotic and this necrosis depended upon endarteritis of the renal arteries and thrombosis of the interlobular arterioles; the medulla was normal and there was no cirrhosis.[2]

I must apologise for quoting this case at length, but inasmuch as the lesion was such as to practically deprive the patient of both kidneys the case is a near parallel to the experimental removal of both kidneys and is therefore of very great interest and tends to the conclusion that the destruction of all the secreting tissues of both kidneys in the human subject does not necessarily produce uræmia in the ordinary sense of the word, notwithstanding the production of complete anuria. The second case, in which

[2] For full details see Endarteritis of the Renal Arteries Causing Necrosis of the Entire Cortex of Both Kidneys, Journal of Pathology, 1898.

symptoms characteristic of obstructive suppression were seen and in which the post mortem examination showed no obstruction, is also of sufficient interest to be quoted in some detail.

A woman, aged thirty-eight years, was admitted to University College Hospital on Dec. 19th, 1897. The patient was a married woman, who was five months pregnant, and she said that she had had no previous illness except typhoid fever five years ago and that subsequently to this she had passed a gall-stone. She stated that she had been quite well until ten days before admission when she was seized with pain in the abdomen followed by vomiting and diarrhœa. The abdominal pain still persisted and there had been occasional vomiting. No urine had been passed since Dec. 18th, although she stated that up to that time she had had no difficulty and that she passed as far as she knew the usual quantity. She had never had any previous attack of abdominal pain or any similar difficulty with her urine. On admission on the evening of Dec. 19th the temperature was 97° F., the pulse was 116, and the respirations were 12 per minute. She vomited several times during the night; no urine was passed and none was found in the bladder on passing a catheter, and there was very slight œdema all over the trunk and especially on the sternum (this has been noted as an occasional phenomenon by Sir William Roberts in cases of calculous anuria, and as in the case described by him so in this case the œdema, which was of the slightest description, disappeared before death). On palpation the abdomen was especially tender in the right lumbar region and the right kidney could be felt and seemed tender. On the 20th the vomiting was slightly less severe, the patient was conscious and rational, and the highest temperature was 97·8°. Two drachms of putrid urine were drawn off, containing a trace of albumin and showing numerous pear-shaped cells but no blood corpuscles and no casts. At 11 P.M. the catheter was again passed and five drachms of ammoniacal urine were drawn off. There was no muscular twitching and the temperature was 97·5°. On the 21st the temperature was still 97°, the pupils were small, the tongue was coated with brown fur, and in the twenty-four hours eight and a half ounces of urine were passed of specific gravity 1012; it was alkaline in reaction and contained one-twelfth albumin. Vomiting was still present, the œdema was less, but an erythematous rash had appeared on the left arm and hand. On the 22nd the bright-red rash had spread all over the body and also on to the face; the pupils were very small and the œdema had practically disappeared. Vomiting was still present and the patient was slightly drowsy and about five ounces of urine were passed. On the 23rd no urine was passed and none was obtained by catheter. The rash was fading, the temperature was 96, and the patient was slightly drowsy. She aborted at 3 P.M. The weakness and prostration gradually increased and she died at 10 P.M. Post mortem all the organs seemed healthy with the exception of the urinary bladder. The bladder was small and the mucous membrane was of a dark grey colour; about half an inch above the opening of the right ureter there was a small sacculus and the mucous membrane of this was greyish black, swollen, and necrotic. There was a small patch of necrotic mucous membrane about one-third of an inch in diameter on the corresponding surface of the opposite side of the bladder. The kidneys were abnormal in shape and the lower half of the right kidney was partially separated from the upper part; and this kidney had two ureters which opened by separate orifices into the urinary bladder a quarter of an inch apart. The ureters were not dilated and there was no obstruction at the orifice of the ureters on either side. Microscopic examination of the kidney showed no signs of any gross disease; in fact the kidney seemed healthy. This case is also a remarkable one, and it would seem that the suppression must have arisen reflexly from the cystitis in the vesical sacculus. The patient lived nearly six days and secreted in that time some fourteen ounces of urine, so that the suppression was not quite complete, but it is quite comparable to what is seen in calculous anuria, as it is not at all uncommon for small quantities of dilute urine to be passed even in fatal cases. This patient, like the patient in the other case quoted above, did not present the usual clinical picture of ordinary uræmia, although vomiting was a slightly more prominent symptom than in many cases of calculous anuria, still it is not uncommon for severe vomiting to occur in some forms of calculous suppression and even for this symptom to be the most prominent and severe one.

I have quoted these two cases at length as showing what I think is a very important fact—that whether the functions of the kidney be arrested by blocking of the ureter or by destruction of the entire cortex or reflexly (even when the kidneys are apparently healthy) the resulting phenomena are those which we have been familiar with in calculous anuria or obstructive suppression and not those of acute uræmia seen in renal disease, although from the suddenness and the gravity of the lesions acute uræmia might well be expected to ensue in such cases. We may thus conclude that the train of symptoms which has been called above latent uræmia ensues not only when the ureters of more or less healthy kidneys are suddenly blocked but also when these kidneys are suddenly prevented from secreting by vascular or nervous disturbance. The results of clinical experience are thus in complete harmony with the experimental facts detailed in my last lecture and the train of symptoms produced experimentally and by disease are really precisely similar and in neither case are they the symptoms of acute uræmia. In disease we apparently meet with three rather than two forms of suppression of urine—that is, with obstructive suppression and two varieties of non-obstructive. One, as in the cases above described, where the activity of more or less healthy kidneys is suddenly completely abolished, and the other where suppression occurs during the course of acute or chronic renal disease and more especially perhaps in Bright's disease. It would seem as if it were not so much a question of the symptoms of suppression being different according as the suppression was obstructive or non-obstructive but rather according as the suppression occurred as a complication of acute and chronic renal disease on the one hand, or on the other hand whether it occurred with fairly healthy kidneys. This is a matter not only of theoretical importance with regard to the nature of acute uræmia and its relationship to lesions of the kidney but also of practical importance in our treatment of such cases. In cases of calculous anuria there can be but little doubt that operative interference should be resorted to very early, but if the typical clinical picture seen in this condition is also seen where the suppression arises independently of any obstruction, as in the cases described above, and where surgery can be of no avail, it introduces a very serious and difficult question of differential diagnosis in such cases. From the theoretical point of view I think we must conclude that complete suppression of sudden origin and dependent either upon the obstruction of the ureters or upon certain acute lesions of the kidney causing entire cessation of the renal activities (such as the cases described above) does not produce acute uræmia. Having thus described at some length the conclusions I have arrived at in reference to so-called latent uræmia and its relationship to sudden and complete cessation of the renal functions experimentally and clinically we will now consider shortly some observations on acute uræmia.

True acute uræmia has only been observed clinically. I have not as yet been able to reproduce it in the laboratory and I have only made observations on the acute uræmia seen as a complication or termination of chronic and insidious renal diseases, and more especially, as already mentioned, on the uræmia that occurs in a form of contracted kidney seen in young subjects and usually described as a variety of contracted white kidney. It may seem far-fetched to associate acute uræmia more especially with one form of kidney lesion, but all I can say is that I have not as yet seen a case of this form of renal disease fatal from any cause except acute uræmia, and I have watched for such cases for the last eight years. Acute uræmia is, of course, also seen as a terminal effect in several other forms of renal disease, acute and chronic, but for some reasons it is more convenient to study it when it supervenes on a chronic disorder than when it complicates such a malady as acute Bright's disease. Acute uræmia resembles diabetic coma in the rapidity with which it is apt to supervene in these cases of contracted kidney unaccompanied with dropsy.

URINE IN ACUTE URÆMIA.

In some cases the onset of acute uræmia in cases of chronic renal disease is heralded by a great and sudden diminution in the amount of urine excreted; but, speaking generally, complete suppression is rare and certainly acute, and rapidly fatal uræmia may occur in this form of Bright's disease whilst the patient is passing quite considerable quantities of urine and urea, as in the case quoted in my last

lecture where a patient passed more than thirty-two ounces of urine containing more than twelve grammes of urea during the last twenty-four hours of life. This amount was recovered and an unknown amount of urine was passed unconsciously in the bed in addition. In this patient, at any rate, fatal acute uræmia occurred with little and perhaps with no suppression, and she had marked uræmic phenomena, such as twitchings and epileptiform seizures, at a time when the daily urine contained at least seventeen grammes of urea. Very little food was taken and some of this was rejected by vomiting. Post mortem the total amount of kidney present was less than four ounces. Such a case stands in great contrast to what is seen in the cases of suppression described above and demonstrates how fatal acute uræmia may occur without any obvious suppression, and, in fact, such a case is really the converse of the suppression series. In other cases quantities of urea up to ten grammes were recovered during the last twenty-four hours of life, but exact determinations could not be made owing to the great difficulties experienced in collecting the urine. It is often said that although such uræmic patients may pass quantities of urine not very much less than the normal, yet owing to its dilute character such urine must contain but little solid matter. This is, of course, true and is made much of by those who consider that uræmia is dependent upon the retention of the saline constituents of the urine. This view is, in my opinion, untenable in the light of the facts obtained from the consideration of the cases of complete suppression, where of course all urinary constituents were retained and yet ordinary uræmia did not ensue. It is sufficient, then, for our present purpose to admit that although a certain diminution in the amount of urine and of urea excreted is common in acute uræmia, yet this condition may supervene and be fatal without there being any great diminution in the urinary excretion. The urine of uræmia is almost invariably dilute, pale, and of low specific gravity, and I have met with only one exception to this statement. In a case of chronic Bright's disease without dropsy fatal uræmia occurred at a time when the patient was passing a dense, highly coloured urine, with a specific gravity of 1025, and here a serious error in diagnosis resulted, as it was thought that with such a urine the symptoms—e.g., the vomiting, &c.—were of gastric rather than of renal origin. Another important question is the relation of albuminuria to uræmia and I have notes of three cases where albuminuria was said to be absent at the time of the onset of uræmic symptoms. The absence of albumin from the urine has often been asserted to be an occasional occurrence in cases of ordinary granular kidney, but in none of the three cases alluded to here was the kidney lesion of this type. In two cases the kidney was of the contracted white variety, and in this particular specimen the urine was only examined once, in the other cases repeated examinations were made. In one of the cases alluded to above, where the specific gravity was 1025, there may have been a minute trace of albumin, but even this is doubtful, and in this case the patient had uræmic vomiting for many days, then muscular twitchings developed and finally coma. Post mortem the kidneys were rather large, the cortex was diminished in thickness and microscopically showed signs of considerable disease; the absence of albumin and the high specific gravity led to quite an erroneous diagnosis. The third case was one of a young man admitted for urgent dyspnœa and dry pericarditis. The dyspnœa was uræmic and was followed by other uræmic symptoms. Post mortem the kidneys were found to be very small, somewhat granular, and the urine, though dilute, was stated to be free from albumin.

The toxicity of the urine in uræmia is a subject that has attracted more attention abroad than here. I unfortunately have only made a very few observations on this point; one of these observations is of sufficient interest to quote here, as it was an experiment to compare the toxicity of the urine secreted by the uræmic patient and the toxicity of the blood serum in the same case. The urine and the blood were obtained on the same day, the patient having had venesection performed for the relief of uræmic coma. 20 c.c. of the urine filtered through porcelain and injected rapidly into the jugular vein killed a rabbit of 1·75 kilos., the pupils becoming contracted and the respiration ceasing. 22 c.c. injected very slowly killed another rabbit of 1 kilo. with convulsions. Thus this urine was certainly highly toxic, as 11 c.c. of urine per kilo. killed the animal when injected rapidly and 22 c.c. when injected slowly. 77 c.c. of blood serum from the same patient killed in a few minutes a rabbit of 1·15 kilos. causing coma and cessation of respiration. In another case of uræmia where venesection was also used 150 c.c. of serum injected into a dog weighing 5 kilos. caused arrest of respiration; the heart, however, continued to beat; after 100 c.c. had been injected the respiration became very irregular. Such observations would require to be greatly extended, but they tend to show that even in uræmia the urine is still toxic and that the blood serum is also highly toxic.

Although convulsions have not been seen experimentally after ligature of the ureters, nephrectomy, &c., yet the cerebral cortex is very excitable, as is shown by such experiments as the following. After the administration of ether the ureters were ligatured in a dog, and forty-eight hours afterwards the cortex cerebri was exposed again under ether and stimulated. Under these circumstances very weak electrical excitation of the motor area is liable to be followed by well-marked clonic spasms of the limbs.

The most striking post-mortem appearance of acute uræmia apart from the frequency of the presence of the small contracted white kidney is the occurrence of well-marked œdema of the lungs quite apart from the presence of general œdema and serous effusions. In the particular class of cases investigated dropsy and serous effusions were conspicuous by their absence. This pulmonary œdema is a well-known accompaniment of uræmic dyspnœa and is perhaps its cause, as it cannot very well be its result, since other varieties of dyspnœa are not accompanied by the well-marked œdema so common in uræmia. The so-called cerebral œdema is a very variable occurrence, but there can be no doubt that sometimes there is a very notable excess of cerebral spinal fluid, and a similar excess was noted in many cases of experimental partial nephrectomy.

THEORY OF UR.EMIA.

All pathologists would probably admit that uræmia is a toxæmia and that it is not brought about by either cerebral anæmia or cerebral œdema. The old objections to a toxic source for this condition were mainly two-fold: first, that it was difficult to conceive of a poison circulating in the general blood-stream and producing more or less localised effects, since localised fits and even localised paralyses are not uncommon in uræmia; secondly, the manifestations of uræmia are so varied that it was thought difficult to conceive of a poison producing such diverse effects. Both of these propositions are probably untenable since such a poison as lead or arsenic can not only produce local effects but can even produce a palsy of a symmetrical function on only one side of the body, although both these metals more often produce symmetrical lesions, yet arsenic may produce unilateral herpes. Further lead may cause psychical disturbance or epileptiform seizures or degeneration of the spinal cord or more usually a palsy of peripheral origin. Thus one and the same metallic poison may produce the most varied effects, and therefore the argument against the toxic nature of uræmia, resting on the basis of the statement that it is impossible for the same poison to produce the varied effects seen, falls to the ground. At the same time it is, of course, possible that the poisons of uræmia are varied. Supposing that uræmia is dependent upon the circulation in the blood and tissues of a poison or poisons the next question that presents itself is whether these are substances formed by normal metabolism that ought to be excreted and are only toxic because they are retained and therefore present in increased amount, or whether these poisons are the products of an abnormal metabolism. Is uræmia dependent on the retention of some body? or is the condition due to the formation of a toxic substance or substances by the disordered metabolism? I think the consideration of the facts, experimental and clinical, that have been adduced will show that uræmia cannot be explained on the hypothesis of the retention of either one or many or all of the urinary constituents, products derived from a normal metabolism. The sudden and complete suppression of the functions of kidneys up to that time healthy produces a train of symptoms similar to those seen in obstructive suppression and, as already insisted on several times, a group of symptoms only resembling very distantly those of acute uræmia. If acute uræmia were dependent on the retention of some normal urine constituent or constituents this condition ought certainly to occur when the functions of the healthy kidney are suddenly suppressed, although it may perhaps be open to argument

whether they ought to ensue when the suppression of urine is dependent merely on obstruction to the ureters. Formerly it was thought that obstructive suppression was in some way quite different in nature and produced different results to those seen in non-obstructive suppression and that although obstructive suppression was not followed by uræmia non-obstructive suppression certainly caused uræmia. The main conclusion that I hope I have established to your satisfaction is that both in the laboratory and in disease suppression of the activity of the kidneys up to that time healthy fails to produce acute uræmia whether the suppression be caused by obstruction or by vascular or nervous mechanism. In other words, the uræmia of the laboratory is the latent uræmia of the clinician. If the facts brought before you afford evidence against the view that uræmia is dependent on the mere retention of normal urinary constituents they also equally militate against the view that uræmia is dependent upon, or associated with, the arrest of a hypothetical internal renal secretion. As long as latent uræmia—i.e., the symptoms of obstructive suppression—was only known to occur in the condition of obstructive suppression the contrast between these effects and the acute uræmia of Bright's disease was so great as to suggest the view that uræmia might in some way be associated with the cessation of the action of an internal secretion. According to this view in obstructive suppression there was retention of urinary products, but the supposed internal secretion went on, whereas in Bright's disease and other renal diseases the internal secretion was arrested in addition to the occurrence of accumulation of the urinary products. If latent uræmia occurs equally well when the circulation through the kidneys is completely arrested and therefore when the kidney is practically absent this view in my opinion falls to the ground.

Although these are the principal reasons for not accepting the view that uræmia is dependent upon the retention of one or more normal urinary constituents there are certain subsidiary facts also pointing to the same conclusion. Death in acute uræmia usually supervenes much sooner than in cases of suppression even when this is complete, and further in the acute uræmia seen at any rate in chronic renal disease without dropsy complete suppression is rare, and this, after all, is the most frequent condition in which acute uræmia is seen. Further cases of acute uræmia are seen, as in a case quoted in these lectures where considerable quantities of urine not falling far short of those seen in health were passed. In addition there is the well-known fact that no observers are agreed as to which elements in the urine are to be considered the toxic ones. This, however, owing to chemical difficulties, is not an argument of much value. The analyses of the blood quoted in the last lecture showed that the blood in uræmia contains very large quantities of such urinary constituents as urea, and although in some cases the quantities were as great as, or greater than, those seen in cases of complete suppression, yet it will be remembered that in the great bulk of the uræmic cases the percentage of the urea in the blood was not so high as in the cases of complete suppression. This is, I think, a point of some importance, as it might be argued that the symptoms in the uræmic and suppression series were different owing to the fact that the accumulation of urinary products might have been more or less gradual in the former case and more sudden in the latter. Poisons, as is well known, often produce different effects according as to whether they are administered in gradual doses or suddenly; the fact that the majority of the cases of uræmia died with a lower percentage of urea in the blood than was found in the cases of complete suppression is, of course, only to be expected seeing that quantities of urine were passed during the last days of life in these cases, but it is surely another fact against the pure retention theory of uræmia inasmuch as almost all the cases of uræmia analysed were those in which this event terminated a chronic insidious disease. The argument would be fallacious if it applied to the analysis of the blood in such a condition as the uræmia accompanying the suppression of scarlatinal nephritis, where the conditions are more complicated than in the terminal acute uræmia of such a disease as contracted white kidney, where owing to the long duration of the illness one would imagine that the patient would if anything tolerate a larger accumulation of urinary products than in cases of complete suppression supervening during comparative or even complete good health. For all these reasons the retention theory of uræmia is, I venture to think, inadequate. If the uræmic poison is not a retained normal urinary constituent it is probable that it is an abnormal product of a disordered metabolism and there are a number of facts in favour of this view. The experimental facts brought before you in my first two lectures point strongly to the conclusion that the kidneys in some way control the metabolism of the tissues of the body and that when the kidney substance was greatly diminished in amount or entirely removed the blood not only contained a great excess of urea but the tissues, and especially the muscles, contained large quantities of urea and other nitrogenous bodies of the creatin class. I also adduced experimental evidence to show that both after partial and after complete nephrectomy this increase of nitrogenous extractives could not be explained on the hypothesis of simple retention and that there was clear evidence of the increased production of these bodies. In uræmia the extractives of muscles are enormously increased, but here one can only surmise, with great probability, it is true, that they accumulate as the result of increased production, since the condition of the patient has prevented me as yet from obtaining the exact information as to the amount of nitrogen ingested and excreted that can be obtained with comparative ease in the laboratory. The really very great quantities of extractives present in the muscles make it more than probable that these quantities are too great to be explained by retention. This conclusion is in harmony with the observations of Oppler, Perls, Schottin, and others, who held that in uræmia there was accumulation of creatin-like bodies. If we assume that in acute uræmia the toxic substances are derived from the products of a disordered tissue metabolism some of the many difficulties of the subject disappear; but still I must confess it is difficult to see why removal of the kidney does not produce acute uræmia unless it be that under these circumstances life is not maintained for a sufficient length of time for the disordered tissue metabolism to be in full swing.

There is a further possibility that as a result of the renal lesions the disordered tissue metabolism produces toxic substances, but that the kidney is able to excrete these products, and that then, as a result either of retention or of greater increased production, they again accumulate and destroy the patient. This may be thought rather fanciful, more especially as I have no observation to detail to you as regards the actual nature of the uræmic poison, but my purpose is really to emphasise two points: (1) that uræmia cannot be held to be due to simple retention and (2) that in kidney disease and after experimental lesions of the kidney there is evidence of great tissue disintegration and that it is more than probable that uræmia is dependent upon this directly or indirectly. It might be thought that the tissue disintegration was itself dependent perhaps upon the retention of urinary products, but the experimental facts negative this, as in the cases of experimental partial nephrectomy there was never any evidence of the retention of urea, and, as already detailed, there was much evidence of the increased excretion of urea. It is to be hoped that further observations will throw much more and greatly needed light on the real nature of the toxic substance or substances found in uræmia.

It remains for me to express my best thanks to my colleagues at University College Hospital for the courtesy they have always shown to me in allowing me to make all use of their material, as without their constant aid I never could have observed the considerable number of cases of acute uræmia from which the above conclusions have been drawn. I have also to thank you, Sir, and the College most heartily for the honour you have done me in selecting me to deliver these Goulstonian Lectures, and although I fear I have by no means fulfilled literally the intentions of the founder, who laid down that the College "would annually appoint one of their four youngest doctors to read this lecture between Michaelmas and Easter, on three days together, both forenoon and afternoon, on some dead body if possibly it can be procured, which shall then and there be dissected for the diseases treated of and shall afterwards be buried," yet I hope I have not entirely missed the purpose of his action.

MR. WILLIAM MAUNSELL COLLINS, M.D. St. Andrews, a practitioner whose name has been removed from the Medical Register by the General Medical Council, was arrested on Monday night last on a warrant charging him with the performance of an illegal operation upon a young married woman since deceased. At the Westminster Police-court on Tuesday Mr. Marsham remanded the prisoner for a week, certified for the Public Prosecutor's aid and refused to take bail.

THE OPEN-AIR TREATMENT OF PHTHISIS IN ENGLAND.

BY FRANCIS POTT, M.D. BRUX., L.R.C.P. LOND.,
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THE excellent papers by Dr. Burton-Fanning in THE LANCET of March 5th, 12th, and 26th, deal with the open-air treatment of phthisis as an adjunct to the work of an English general hospital. The subject is one which is so important to the whole medical profession and one upon which it is so often consulted by patients that I have thought it would be interesting to describe the details of a house and its appliances which have been specially prepared for carrying out the open-air treatment of phthisis on patients of the better classes in England—as an adjunct, in fact, to the work of private practice.

Every medical man experiences difficulty in finding places for the sojourn of his tuberculous patients in this country, with the result that it has become a routine practice with some physicians to throw their patients and their responsibilities upon our continental neighbours, whilst the patients themselves accept as an aphorism the dictum that they must "go abroad to get well." For poor patients there are, indeed, in England some, all too few, well-conducted sanatoria where a vacant bed may be fortunately found; for the richer there are "lodgings" or hotels at a health resort. This is not sufficient provision for needs that are obvious. For a phthisical patient to carry on a duly regulated open-air life requires an amount of self-denial on his part as well as a never-ceasing attention on the part of his physician which can alone be secured by constant encouragement, skilled attendance, and an environment specially arranged for its purposes. A phthisical patient arriving at a health resort has not only to encounter the difficulties of finding a suitable lodging but he may have now to meet the scare which has arisen concerning the communicability of his disease. At the moment when the most valuable therapy for his condition is comfortable surroundings and freedom from trouble he may find himself involved in a thousand and one dilemmas.

These considerations, together with encouragement from some leaders of our profession, recently decided me to acquire and adapt to its special purpose the house which is about to be described. This house is at Bournemouth, which town, as everyone knows, attracts a large number of phthisical patients, the porous soil, sunny cliffs, small rainfall, and free access of pure air marking it as a suitable locality. And before going further may I explain that I cannot describe the house without wearing the appearance of desiring to give myself an advertisement, for I live in the house and it is to my advantage that patients should live there also. But what I hope to show is that such provisions as I have been able to make have worked for the good of the sick, and I am greatly encouraged in that belief by my personal experience and by such papers as those from Dr. Burton-Fanning's pen which have been recently published in THE LANCET.

Originally a pair of large semi-detached houses, the building was knocked into one, so that by addition and re-arrangement the whole of the south frontage could be devoted to bedrooms for the patients. Behind these south bedrooms is a large corridor hall which is always kept warm, and off this hall open the dining-rooms. As the invalids only come into the house to eat or sleep they have no use for a drawing-room. The offices extend in wings at the back of the building. A deep and lofty verandah surmounted by a balcony is built into the recess formed by the projection of bays at each end of the south frontage; opening on to the verandah and balcony are French windows from the bedrooms. Many mechanical contrivances have been utilised to protect the occupants of the verandah from rain and wind, and no pains have been spared with respect to the furniture, &c., to make the occupants look upon it as their real home, and the house behind as simply a receptacle for their beds and their property. The furniture of the verandah includes couches, deck chairs, hammocks, and light spring bedsteads for the patients, with ordinary chairs for friends or visitors not requiring invalid attentions. Wooden boxes containing warm mats, into which out-door sitters can put their feet, are found very comfortable. There are occasional tables, bed-tables, reading-tables, hot bottles, cushions, back-rests, and all appliances we can think of which would be likely to assist invalids to pass the time in the open air comfortably and happily when once they have been weaned from the chimney-corner.

To pass from the verandah, on the lawns are small three-sided roofed huts of a pattern and lightness which allow them to be moved to any part of the grounds as the wind and the patient's fancy dictate. A hut contains space for a couch; its roof can be raised at will; in the sides are wooden windows which open to form tables, and by throwing back the adjoining sides of two huts they can be converted into one and thus allow communication between neighbours.

Of indoor life the patient is encouraged to have as little as possible, but indoors our arrangements all make for light, air, and cleanliness. The walls and ceilings, devoid of cornices or plaster-work, are covered with a silicate paint which allows of absolute cleansing with disinfectant solutions. The floors are painted a dark mahogany colour on which the least dirt shows up; they and the paint-work of the doors and windows are heavily varnished to allow of frequent cleansing. All round the room a three-inch strip of board is nailed to the floor; this effectually prevents furniture from being pushed close to the wall, and thus space is provided for cleaning behind heavy furniture and for a free air-current. There are no fixed carpets but rugs, each of a size to enable it to be rolled up and removed by a servant, are employed. To the back of the rugs strong loops of webbing are sewn, by which they may be suspended in the verandah as wind-screens—a plan which is admirable from the points of view of utility and hygiene but which shortens the life of the rug.

Every sash window-frame has a hinged board along the bottom; this is grooved for the reception of the lower edge of the sash. When the sash is shut down on this board a space is left at the meeting-place of the two sashes, giving ventilation on the Tobin tube system. This arrangement is convenient in the first stage of acclimatisation of patients who have previously been accustomed to closed-up rooms. Despite all the natty inventions of automatic fixers no remedy for rattling windows has been found to excel a plentiful supply of common wooden wedges. Doors and windows have no peculiar features further than that care has been taken that they fit accurately enough to obviate any rattling. The furniture is of polished wood, mostly mahogany. Each piece stands high from the floor, being raised, if necessary, on pyramidal blocks of wood—an arrangement which permits of the floor beneath being easily cleansed and easily seen.

To keep the house absolutely clean necessitates more than the ordinary flapping around with a broom and a "duster," both of which are taboo. The daily cleansing of the floors and cork carpet is done with an instrument, like a large croupier's rake, which is used to push about a damped cloth; this is in turn wrung out in a bucket of disinfectant. The gloss of the varnish is revived by a second rub round with a flannel damped with paraffin. Good paraffin leaves no smell. In place of dusters damped cloths are used. Thus all dust is removed, not merely shifted. When a room is vacated or changed a regular routine of cleaning is followed which embraces a free use of sublimate solution. Articles of furniture are polished outside with a sanitary polish containing a disinfectant, and they are cleaned within by damp cloths. No lining papers are used in drawers. Large quantities of unused clothes are not encouraged to stay.

The intelligent understanding exhibited by patients of education of the sense of these details is a great assistance to their execution. When the patients grasp the reason for the way their lives are ordered they willingly coöperate. This is well seen in the matter of the disposal of sputum. This presents no difficulty if the patient really understands the prime importance of guarding himself and others against microbic dangers. The spit-flask used is of pink glass of some four ounces capacity; a glass disc covers its mouth and across the disc a strip of tissue paper is pasted to the flask. Before using the flask the paper band must be broken—the torn paper indicates that the flask has been used. Every day a large number of freshly cleansed flasks containing a little disinfectant solution are put out about the house.

In lodgings and hotels open-air treatment is well-nigh impossible for even the most determined patient under the

care of however skilled a physician and devoted nurse. In a house dedicated to the special purpose of the open-air treatment, where the possibility of cure is common knowledge, the invalid meets with the encouragement of example; routine is not overriden by the convenience of the moment, constant attention to detail does not slacken, and promising cases provide for the less fortunate that best of stimulants—hope. This, at least, is my own experience.

Bournemouth.

A SUGGESTION FOR THE OPEN METHOD OF SUTURE OF OLD FRACTURES OF THE PATELLA.

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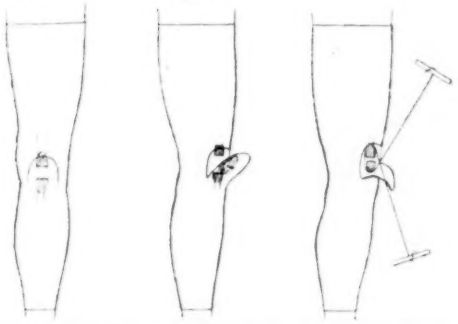
THE knee-joint is now so frequently opened both for injury and disease that all the details of the operation appear to me to claim a very careful consideration. It is for this reason that I venture to suggest a method of opening the joint where we propose to wire the patella for *old* fractures, which appears to me to offer many advantages over other methods commonly in use. Among these may be named the single vertical cut over the front of the patella, the H-shaped incision and the semilunar with the curve downwards as perhaps most in vogue. Each of these has often seemed to me to have certain disadvantages, the chief of which are, I think, as follows. The single median vertical incision doubtless gives free access to the fragments, but unless it is made very long the latter cannot be easily manipulated through it. It is, therefore, difficult to freshen the old cicatrised faces on both the upper and lower fragments either with saw or chisel. Moreover, in those cases intermediate between recent and very old fractures, where, say, a fortnight or three weeks after the accident we are called on to suture a broken patella and where there is neither a fresh surface on the fragments nor as yet well-organised fibrous tissue but probably a quantity of half-organised blood and broken-down clot, we want more room for the removal of the latter and the cleansing of the cavity than we can secure through the vertical cut unless it be very long. But if it is extended the scar is in the line of pressure during kneeling and may be tender for an indefinite time. Besides this the scar lies directly over the wire and may not bear the pressure of the latter without pain or even destruction of the skin. Finally, the cicatrix being in the middle line and probably for a long time at all events adherent to the parts beneath, there is less free play of the skin over the patella than there should be. The H-shaped incision is not open to the first of these objections. It gives good access to all the parts involved both for wiring and removing blood, fibrous adhesions, &c., but the scar directly across the patella is as objectionable as that in its vertical axis in regard to adherence to the parts beneath and its relation to the wire, though it does not come so much in the way of kneeling. The semilunar cut with the curve across the ligamentum patellæ gives free access to the lower fragment but not to the upper unless made very freely. The scar, too, lies in a position sure to be pressed upon in kneeling.

These several objections to the hitherto recognised methods of opening the knee-joint have frequently occurred to me in former years and have led me in the last five or six cases in which I have been called upon to suture the patella for old fracture to adopt the practice now to be described, which I suggest is an improvement and which certainly has given me the best of results with much greater ease in operating than that found in the older methods. The aims of the procedure are to gain free access to the parts to be dealt with with a minimum amount of cutting, and in such a way as to place the resulting scar out of reach of pressure either from kneeling or from the knot of the wire; finally, to provide a good firm pad of tissue over the front of the patella and the uniting wire suture. The steps of the operation are as follows. In the first place the lower border of the upper fragment of the patella is made out by palpation as it is drawn down as far as possible by the thumb and fingers of the operator's left hand and steadied in the middle line of the limb. A curved incision in then made with its convexity *upwards* (Fig. 1), beginning just below the level of the broken surface of the lower fragment, thence curving upwards and crossing the middle of the upper fragment to end at a point on the opposite side of the joint corresponding with its point of origin. The tip of this flap is now dissected downwards to the broken surface of the upper fragment. The knife is then carried backwards across the face of the latter, clearing from it all fibrous tissue until the joint is open. Then the edge of the knife is turned forwards and placed on the posterior border of the broken surface of the lower fragment of the patella and the fibrous tissue is similarly cleared from it. In this way all the fibrous matter

FIG. 1. FIG. 2. FIG. 3.



previously uniting the fractured pieces is left attached to the deep surface of the middle of the flap and the remains of the patellar bursa, but without disturbing the latter (Fig. 2). The edges of the bones are then freshened with saw or chisel, the joint being protected meanwhile with a small sponge. I then pass the silver suture as follows: a stout, handled needle with an eye near the point (the same as that devised for my subcutaneous method of patellar suture) is thrust through the skin immediately under the lower border of the distal fragment. (The skin may be previously punctured with a knife.) It is then thrust through the ligamentum patellæ, scraping the border of the fragment in the middle line and passing behind both it and the upper fragment. When the point has reached the upper border of the latter it is made to pierce the attached muscles in the middle line of the fragment. Here it is threaded with stout silver wire and the needle is withdrawn carrying, of course, the wire behind to the fragments; but when the point of the needle has cleared the lower edge of the lower fragment it is thrust in front of the latter under the flap until it can be unthreaded in the original wound. The wire now includes the broken fragments of the patella, the two free ends crossing in front of the gap between them (Fig. 3). Each end of the wire is now threaded through a bar of steel twice and with these bars in the hands a strong pull can be made upwards with the lower end and downwards with the upper, the latter being in the operator's right hand and furthest from him, the lower wire being in the left hand and nearest to him. By this strain the fractured surfaces are brought close together aided by the fingers of an assistant. When it is seen that the adjustment is correct a few twists of the wires fasten the fragments securely. Then the wires are cut about half an inch from the twist and the ends are flattened down transversely. All clots should, of course, have been previously removed from the joint with the small sponge. The flap containing the skin, the remains of the bursa patellæ, and the fibrous material from between the fragments is now laid down over the patella and forms a thick pad covering the wire. It is carefully stitched all round without any drainage unless there is decided oozing, when each angle may be left without a stitch. But as a rule if a soft elastic dressing is at once applied and firmly bandaged there is no accumulation of blood in the wound and no need for drains. No splint is required and the patient is encouraged to gently move the joint in bed from the first. After the removal of the stitches on the tenth day he should be urged to do so. Besides this massage should be employed daily all round the joint.

In the cases in which I have employed this method

primary union has been invariable and the result has been more satisfactory than in those operated on by the other methods. In my first case—that of a powerful seaman—the strength of the bond of union between the fragment was so great that he returned to his calling and could do anything with the limb; and when about a year later he was put to a great strain in heavy weather the opposite patella broke, but that with the wire round it still held firm. It might be objected to this method that the wire on the articular aspect of the patella would give trouble, but so far this has not been found to be the case. And, indeed, being perfectly smooth and more or less buried in the bone by the strain put upon it this need hardly be expected. The saving of time effected by this method of throwing the wire round the fragments rather than by boring them is great. Moreover, to drill the bones exactly in the same places is very difficult and the danger of splitting them in the process is not imaginary. Both these difficulties are overcome by the above method, which of necessity brings the fragments into the same plane and does not weaken them in the least.

I shall be very much interested, if other surgeons should adopt this method, to hear their opinion in regard to its merits. I have hesitated to dub it "a new method," being rather sceptical about anything nowadays being "new" in surgery. But so far my reading or observation has not brought any similar method to my knowledge. For recent fractures of the patella I see no reason at present to depart from my method of subcutaneous suture, which I apply to every case I meet at once. This I have done between twenty and thirty times with good results, some of the cases having been already published.

Harley-street, W.

SOME REMARKS ON RECTAL SURGERY.

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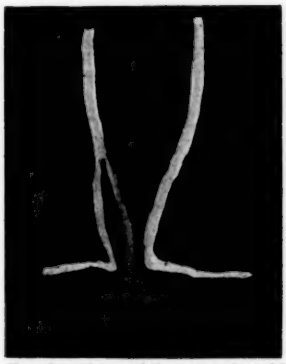
(Concluded from p. 637.)

ON VILLOUS GROWTHS AND POLYPI OF THE RECTUM.

POLYPUS of the rectum in its different varieties is not so rare a disease as writers would lead us to believe. In the adult it is so, comparatively; but in the child it is *the principal cause of hæmorrhage from the bowel*, and from this fact cases of polypus have been doubtless wrongly put down as those of hæmorrhoids, which as an affection of child-life is almost unknown. In children and young adults polypi

FIG. 18.



Vascular polypus of the rectum in a child.

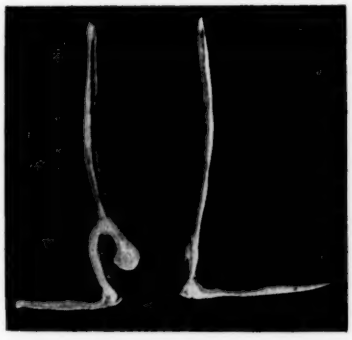
are chiefly of the mucous variety. In adults they are more fibrous and the graver kinds assume the form of a villous growth, the villi being composed of coarser or finer sessile dendriform structure, to which a distinct section of this paper will be bestowed. The mucous growths are generally found in children under ten years of age, and in male more commonly than in female subjects, since out of 35 consecutive cases 29 were in males; and 27 were in children under ten years of age, and 8 in adults. (Fig. 18.) These growths vary in size from that of a pea to that of a large cherry; they grow from the submucous tissue, and are covered by mucous membrane. When far beyond the reach of the sphincter and when small they probably do not cause any inconvenience, though when large they may give rise to straining or ulceration of the bowel, prolapsus recti, and even intussusception. In some cases a polypus is associated with ulceration of the rectum, the ulcer at one time existing below the polypus, in another on the wall of the bowel opposite its body. In Fig. 19 and Fig. 20 these conditions are illustrated. One of the worst examples of

FIG. 19.

Fissure of the anus with polypus above the fissure.

prolapsus recti I have ever been called upon to treat was due to the presence of a fibrous polypus situated some inches up the bowel of a man fifty years of age who had suffered from it for twenty years (Case 2). He was cured by the removal of the growth. When these growths are attached to the bowel near the sphincter local irritation and hæmorrhage are produced, the growth appearing often at

FIG. 20.



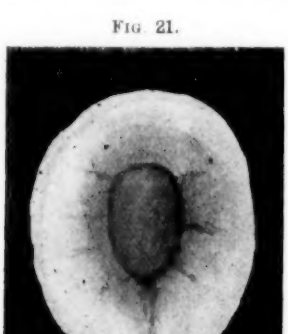
Fissure of the anus with polypus opposite the fissure.

the anus as a pink or red cherry. (Fig. 21 and Fig. 22.) Blood sometimes flows from the anus only during defecation, at other times quite independently of such an action. When the polypus is low down there is usually with the blood a free discharge of mucus.

Whenever a child is brought to a surgeon with these symptoms a local examination should be made, and to do this efficiently the surgeon should sweep his finger introduced into the rectum completely round the walls of the bowel. By so doing the polypus will be dragged from its attachment and its pedicle made tense. Sometimes several polypi exist together. I have on one occasion removed three. They are made up of fibro-cellular tissue, being more or less fibrous, according to the age of the patient; in the adult the fibrous element predominates. In exceptional cases the fibrous polypi of adults are

multiple. I shall later quote two examples of this kind, in one of which (Case 3) eventually the rectum even for a foot or more upwards became covered with sessile fibrous polypi varying from the size of a pea to that of a large almond, and in the other (Case 4) these sessile fibrous polypi followed the removal of a large villous growth some months previously. When a polypus has been discovered its removal is the only correct practice. In children, when I detect one with the finger, I generally manage to hook it down, and in so doing break it

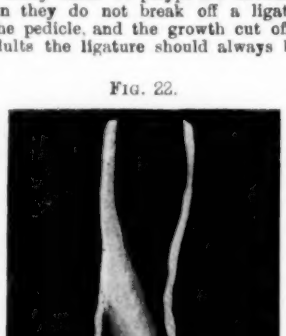
FIG. 21.



Fibrous polypus of the rectum appearing at the anus.

off from its attachment to the bowel. I have never seen any bleeding follow this measure. On several occasions when I have brought the growth external to the sphincter the action of the muscle has broken it away, and in this manner many cases of polypi are doubtless naturally cured. When they do not break off a ligature may be applied to the pedicle, and the growth cut off beyond the knot. In adults the ligature should always be employed.

FIG. 22.



Fibrous polypus of the rectum in an adult.

On the removal of the disease the symptoms disappear, but when they continue a second polypus will generally be found. In rare examples as already indicated multiple polypi are found. The following cases will illustrate the subject.

CASE 1. *Great prolapse of the rectum due to fibrous polypus; operation; recovery.*—A woman, aged thirty-three years, came to me in August, 1874, for a serious prolapse of the rectum associated with severe straining and loss of blood. The bowel had been down for many months and it protruded for at least six inches, but for some nine months before it had come down to stay it had occasionally protruded when the bowels had acted, but at that time there was but little bleeding. On making an examination I detected about three inches up the prolapsed bowel a sessile fibrous polypus of about the size of a small walnut, which I subsequently pulled down into view and removed by clamp and cautery after having dilated the external sphincter. The prolapsed bowel was readily returned but not so readily maintained *in situ*. This position was secured, however, by the introduction of my colotomy vulcanite plug and its retention for a few days, when a good convalescence followed.

CASE 2. *Prolapsus recti of twenty seven years' standing due to the presence of a fibrous polypus; removal of the polypus; recovery.*—(The following notes were taken by Mr. E. W. Deane) A man aged forty-seven years, was admitted into Guy's Hospital under my care on March 1st, 1875. His family history was good excepting that his father and sister were subject to what were called "piles." He himself had tolerably good health, although when twenty years old he first noticed a pain when his bowels acted. Some seventeen years after this—that is, ten years before his admission—the pain had considerably increased and he noticed that there was something protruding from his anus when he had a motion which he used to put back. The protrusion occurred not only when he passed a motion, but subsequently when he walked. He consulted surgeons, who treated him with lotions and medicines. His complaint was supposed to be "piles," and he was advised to obtain admission to Guy's Hospital, where it was found that he had a prolapsed rectum. The bowel protruded for about three inches and the rectum was very loose. Upon examination a fibrous polypus was detected high up the bowel. This was seized by a pair of long forceps and brought into view, when a double-threaded needle was passed through its base which was tied in halves and the polypus removed with a pair of scissors. A morphia suppository was placed in the rectum and a subcutaneous injection was given, after which the patient passed a good night. His progress towards recovery was uninterrupted.

CASE 3. *Sessile polypus high up the bowel causing for six years tenesmus with bowel irritation; removal of the polypus with relief for one year; return of growths in numbers; lumbar colotomy with marked benefit; death six years later from pneumonia.*—In 1876 I was consulted by a man, aged forty-four years, who was said to have had dysentery some years previously, for great bowel irritation and tenesmus associated with the passage of a quantity of rice-water mucoid fluid. These attacks would come on every three or four hours during the day but were less frequent at night. They had gradually been coming for five or six years. Suspecting the presence of a polypus I consequently investigated the case with the patient anæsthetised, when after a careful examination my diagnosis was confirmed and I was able to draw a sessile fibrous outgrowth from its high position in the rectum down into the lower part, when I passed a needle through its base and cut it off. The growth was clearly fibrous and of about the size of an almond. The operation gave much relief, but in the course of months the symptoms returned with steadily increasing intensity, and at the end of a year I found the lower bowel as far as I could reach studded everywhere with the same fibrous outgrowths as I had before removed. Under these circumstances I performed left lumbar colotomy with marked immediate and indeed with permanent success, for although the lower portion of the bowel for the six years of life which were subsequently enjoyed, discharged upwards and downwards the same rice-water mucoid fluid there was no pain or even tenesmus, and had the patient not been attacked with an acute pneumonia there was nothing in the condition of his bowel to have shortened his life. It is much to be regretted that I am unable to give any account of the pathological condition of this patient's bowel, but he died away from London and I could not get a post-mortem examination.

CASE 4. *Removal of a villous rectal polypus followed by the growth of diffused multiple fibrous polypi.*—In April, 1872, I was consulted by a man, aged forty-five years, for the frequent discharge from the bowels, with and without motion, of watery mucus associated with much griping pain and tenesmus. These symptoms had existed for a year and had been gradually becoming worse. At times the rectal discharge was blood-stained when not blood. On examination I found high up the rectum a sessile villous growth which in May of the same year I was able to get hold of with fenestrated forceps and to bring down sufficiently low to allow me to place a ligature round its base in halves and to cut it off. Its base was of about the size of a shilling. Immediate relief followed this operation and the patient for some five years thought he was well, when the symptoms returned, although with much less severity. I then examined

him again and found another sessile polypus, but of a fibrous form, not villous in character, of about the size of an almond, apparently growing near the spot whence the first one had been taken away. This also I removed in 1878. For a time the patient was again comfortable and it may have been a year or more before the old symptoms began to show themselves, but it was not till 1886 that I again saw him. I then found on making a rectal examination that the bowel was as far as I could reach absolutely studded all over its surface with sessile fibrous polypoid growths, similar to the second one I had removed eight years previously. As these could not be taken away, and it was a question how far they involved the bowel, I performed a lumbar colotomy in January, 1886. I was pleased to find that the intestine at the seat of operation was quite healthy in both directions as far as could be reached. Rapid recovery followed this measure and much comfort was given, but as time passed the rectal trouble increased so far as discharge was concerned and some of this came upwards and escaped through the lumbar anus and was at times mixed with much blood. Later the lower extremity of the bowel occasionally even worked its way out of the lumbar wound and presented the appearance of an inverted horn or cornucopia with its outer surface covered with the fibrous sessile outgrowths which I have described. The reduction of this was readily effected, but at times it would reappear. The question of further operative measures was discussed, for I thought it quite feasible to have removed the seat of disease now a healthy lumbar anal opening had been established and there was no evidence of any disease of the colon above, but neither the patient nor his friends would take this proposal into consideration, so the patient returned to his country home and made the best of matters until December, 1889, when he died, aged sixty-two years, from bronchitis and heart failure, seventeen years after the removal of the villous polypus to which I have alluded. The connexion between the villous rectal growth and the fibrous sessile polypus is well illustrated in this case. I have in no other found them to have been associated.

VILLOUS GROWTHS OF THE RECTUM.

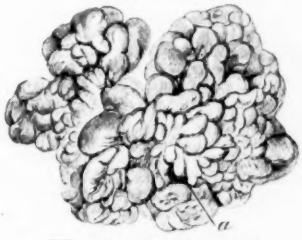
Villous or papillary growths are met with in the rectum more frequently than is generally believed, as they are in other parts of the large intestine. When high up these growths may give rise to intussusception; when low down to prolapse of the rectum. (Fig. 23.) In 1894 I reported

FIG. 23.

Villous tumour of the rectum in a female, aged sixty-four years.

two cases[1] of intussusception of the large intestine due to the presence of a villous growth which I successfully reduced by the introduction of my hand into the rectum after the removal of the growth. One (Case 5) was in a woman, eighty-four years of age; the second (Case 6) was also in a woman, aged fifty years. Both patients made excellent recoveries and neither had any further bowel trouble. In that communication I pointed out that prolapse of the rectum and invagination with intussusception of the large or small intestine are but different degrees of the same condition; and that both are brought about by the same causes—namely, local irritation. The surgeon is familiar with prolapse of the rectum in cases of piles and rectal polypi, as well as in those of ulceration of the rectum and of local irritation by worms, and he meets with the same condition in the rarer but not less marked cases of papilloma of the rectum. He recognises also a certain degree of invagination of the bowel in cases of annular stricture of the rectum, cancerous or otherwise, in which the orifice of the strictured bowel feels to the finger introduced into the rectum either like the exaggerated and patulous mouth of an elongated neck of the uterus or like a more complete example of intussusception—in the cases of prolapse of the rectum the bowel prolapsing through the

FIG. 24.



Villous polypus of the rectum.

anus and in the cases of stricture of the rectum the upper part of the bowel prolapsing as an invagination into the lumen of the canal below.

I also indicated how local intestinal irritation of any kind when applied for a sufficient length of time to any part of the lumen of the intestinal tract is prone to be followed by prolapse, invagination, or intussusception, and that these results are most liable to occur when the local source of irritation is situated either above and within a few inches of the ileo-cæcal valve—where there is a narrowing of the bowel followed by an expansion—or within a few inches of

FIG. 25.

The drawing was taken from a vertical section of the villous growth illustrated above and showed vascular simple and compound villi covered with columnar epithelium, large vessels in the base on which the villi rested, and sections of the follicles of Lieberkuhn. The section represents half the thickness of a lobule of the polypus by a 1/3 inch power.

the anus at which a like narrowing of the bowel exists. I also illustrated these points by specimens from the museum of Guy's Hospital of intussusception due to the presence of papillomata—polypi and cancerous and other growths—and pointed out how from the two cases I had related and the

[1] Transactions of the Royal Medical and Chirurgical Society of London, 1894.

preparations exhibited, it appeared, that a growth which involves only a segment of the circle of the intestinal lumen is more likely to be associated with a complete intussusception than an annular stricture, as it is certain that papillomata when they attack the rectum are attended with far more straining, tenesmus, discharge of serous fluid, and prolapse than any other growth whether cancerous or otherwise—these symptoms being the usual indications of intussusception.

I propose now to extend these remarks a little further and to demonstrate their truth by the quotation of seven additional examples of villous rectal growths associated with marked tenesmus and the discharge of much mucoid fluid, and, in many, of blood. These seven cases, with Case 4 already reported and Cases 5 and 6 briefly alluded to, make a total of ten cases of villous rectal growths, seven of which occurred in women and three in men. I have had three or four other cases of the same kind, but have not sufficient notes of them to record. The specimen removed from one of these may, however, be seen at Guy's Hospital museum, No. 1013. Others, I regret to say, for museum reasons have been thrown away. The growths removed in Cases 4 and 5 are in the museum of the Royal College of Surgeons of England.

CASE 7. *Prolapse of the rectum associated with much hæmorrhage due to a villous rectal growth; operation and recovery.*—A woman, aged forty-three years, came under my care at Guy's Hospital in June, 1867, for a severe prolapse of the rectum associated with loss of blood after every motion from which she had suffered for twenty years, the straining at times being most distressing. When I saw her the bowel was down for about nine inches; blood was then passing with her motions and the pain was great. I made a careful examination but failed to find anything. I reduced the prolapsus and prescribed rest. On my second visit, with the bowel only down a very little, I examined her again and with my finger could just touch a new growth. With a pair of long fenestrated forceps I took hold of it and brought it down, finding a splendid specimen of the coarse villous polypus. I put a ligature round its base at once and cut off the growth. No single unfavourable symptom subsequently appeared; all her former troubles at once vanished and a complete recovery ensued. Three years later this woman was still well. The growth is illustrated in Fig. 24 with its microscopical appearance as shown in the late Dr. Moxon's drawing (Fig. 25).

CASE 8. *Papilloma of the rectum with prolapse of the bowel; operation; recovery.*—In 1876 I was consulted by a woman, aged fifty-two years, for great prolapse of the rectum associated with the discharge of much blood-stained mucus and at times of blood accompanied with straining. The bowel had been down for some months but for at least a year before it had come down when straining at stool, and at these times there was a free discharge of watery fluid. An examination revealed the presence of a sessile villous polypus high up the rectum which was drawn down by means of forceps into view, ligatured, and removed, a rapid recovery taking place.

CASE 9. *Villous growth of the rectum; prolapse of the rectum; operation; recovery.*—In 1881 I was consulted by a woman, aged fifty-six years, for prolapse of the rectum of three months' standing, associated with tenesmus and the frequent discharge of blood-stained watery mucus. For about six months previously she had noticed the same mucous discharge, which was accompanied with diarrhœa. On examination a sessile papillomatous growth was found on the dorsal surface of the rectum, about three inches up, with a base an inch in diameter. This was drawn down and ligatured in halves at the base and cut off. A rapid and complete recovery followed.

CASE 10. *Villous growth of the rectum of twenty years' standing; loss of much blood; operation and recovery.*—In June, 1881, I was consulted by a man aged thirty-five years, who when only fifteen years of age passed blood at his stools accompanied by much straining. Since then at intervals varying from three days to a month the symptoms returned. He would for a week or two weeks together pass blood with every motion and the blood would generally flow from the bowel for ten or fifteen minutes after defecation, but sometimes he would pass no blood for three days. At these attacks there would be great straining but no prolapse of the anus. Much mucus would, however, at all times be passed with the motions. An examination made with the patient anæsthetised during one of these attacks revealed the presence of a papilloma attached to the orifice of an intussuscepted bowel, high up the rectum. This I pulled down by means of a long pair of fenestrated forceps and, having ligatured its base in halves, I removed it. The growth covered the area of a florin. Everything went on well subsequently and a rapid and permanent recovery ensued.

CASE 11. *Villous growths of the rectum; operation; cure.*—In April, 1883, I was consulted by a man, aged fifty-six years, for the discharge of much mucoid fluid from the rectum accompanied at times by straining and occasional prolapse of the rectum. These symptoms had been steadily becoming worse for six or more months, but for the last month the constant bearing-down pain and discharge had induced him to seek advice. On examination the external anal parts looked healthy, but internally about three inches up the rectum and on its dorsal aspect a villous growth was found. This was then dragged downwards by means of forceps and removed, after its base, which was of about the size of a shilling, had been ligatured in halves. A rapid convalescence ensued.

CASE 12. *Villous growth of the rectum; operation; cure.*—A woman aged fifty-six years, the mother of three children, consulted me in August, 1889, for severe tenesmus and the passage of much mucus from the bowels which for the last month was blood-stained. These symptoms had existed for more than two years and had been gradually becoming worse. On examination under an anæsthetic, a hard, papillomatous growth was detected high up the bowel, which was partly invaginated, and after some trouble this was seized and brought down, where it could be ligatured at its base and removed. The base was of about the size of a florin. A good recovery ensued and five years later this patient was quite well.

CASE 13. *Villous growth in the rectum; removal; recovery.*—In October, 1890, I saw, in consultation with Mr. G. Eastes, a woman, aged sixty-nine years, who for some months when at stool had suffered from abdominal straining and the passage of much mucus, which for the last month had been mixed with blood. During the last month something was forced through the sphincter of the anus so as to protrude externally, but this was reduced with ease by the application of external pressure. On examination of the rectum I detected a large cauliflower villous growth attached to the anterior wall of the rectum about three inches up, which I was able by means of forceps to draw down outside the anus and to remove after having ligatured its base in halves; a rapid recovery followed. This patient lived in comfort for six years after the operation and died on June 12th, 1896, from pernicious anæmia, at the age of seventy-five years.

From a careful consideration of these cases of villous rectal growths the following conclusions seem to be reasonable:—

That a villous growth of the large intestine is by no means uncommon, and particularly in women.

That when an adult is liable to attacks of abdominal straining associated with the passage from the bowel of rice-watery mucoid fluid or thick mucus in any quantity, the suspicion of the presence of a villous growth should be excited.

When the straining is persistent or relieved by only brief intervals, and blood becomes mixed with the mucous discharge, the probabilities of the presence of a villous growth are much strengthened.

When prolapse of the bowel becomes constant and this is attended with the discharge of bloody mucus or blood alone, careful search for a villous growth should be made.

The diagnosis becomes clear only when the growth appears with the prolapsed bowel at the anus or can be detected with the finger. In all cases of intussusception in adults the question of a villous or polypoid growth being the cause should be entertained.

Grosvenor-street, W.

BRISTOL GENERAL HOSPITAL.—The half-yearly meeting of the governors of the Bristol General Hospital was held on March 14th under the presidency of the mayor. The annual report for 1897 showed that the ordinary receipts were the same as those in 1896, being slightly over £9600. The expenditure amounted to £10,683, which shows no appreciable increase over the preceding year. The only increase recorded in subscriptions was that of the working men, the amount being £1711, against £1566 in 1896. The medical report showed that the working of the hospital had been very satisfactory. The out-patients treated numbered 31,858, against 30,166 in 1896.

CARDIAC PERISTALSIS: ITS NATURE AND EFFECTS.

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CHAUVEAU, Faivre, and Marey by their classical experiments on the horse have demonstrated once for all that the systole of the auricle precedes that of the ventricle. Unfortunately their graphic curves of pressure changes in the heart have left the impression that the auricular systole not only commences before that of the ventricle but is completed before the latter begins. Such a conclusion seems to have been admitted with far greater reserve by the above-mentioned observers than is commonly supposed; indeed, two at least of them have specially protested against its too general application. It is to this unfortunate and hasty assumption that a large proportion of the confusion which has arisen in the discussion of cardiac physics must be attributed, since in man at least it is exceedingly improbable that the contraction of the auricle has generally finished before that of the ventricle commences. The systole of the heart is a peristalsis, and the essential feature of a peristalsis is a contraction in sequence, wherein the contraction of a given segment is maintained till that of the adjacent segment is sufficiently developed to prevent regurgitation on the relaxation of the first. A cardiac cycle, as I understand it, commences by the contraction of the great veins near their junction with the auricles, which contraction is maintained during the auricular systole, thus shielding the blood in these veins from the rising intra-auricular blood-pressure. In a similar way the systole of the auricle both anticipates and overlaps that of the ventricle, being maintained until the closure of the auriculo-ventricular valves towards the end of the first phase of the ventricular systole prevents further possibility of regurgitation.

The contraction of the ventricle likewise does not readily cease, but apparently is continued for some time even after the ventricle has expelled its contents into the aorta. This peristaltic contraction in sequence, with the overlapping of the contractions of adjacent segments, which is characteristic of peristalsis, brings into harmony many carefully made observations which otherwise seem discordant. Roy and Adami, in the curves published by them,[1] have indicated the time relation of the principal elements which compose the heart-beat. In these curves the contraction of the auricular wall is figured as continuing throughout the first phase of the ventricular systole, and ceasing about the time of the opening of the aortic valves. Thus the systole of the auricle is a somewhat prolonged contraction which, like a peristaltic contraction elsewhere, does not cease when that of the next muscular segment commences. Many other curves, such as that by François Franck,[2] also indicate, without the writers being apparently aware of it, that the contraction of the ventricle may begin before that of the auricle has finished. Professor Potain[3] also maintains that the contraction of the auricle is by no means of insignificant duration; he writes: "On en peut attribuer d'une façon générale un tiers au repos, un tiers à la systole de l'oreillette, l'autre tiers à celle des ventricules." This auricular systole, Professor Potain considers, lasts till the apex-beat is well developed, to which, indeed, he attributes the latter. By graphically recording the apex-beat and simultaneously listening for the first sound Professor Potain has concluded that this sound occurs late in the upstroke produced by the beat. He attributes the sound to the closure of the mitral valves at the termination of the auricular systole and the commencement of the ventricular systole. It is unfortunate that he should have supposed, with so many other writers, that the closure of the auriculo-ventricular valves marks of necessity the commencement of the ventricular systole, as his consequent conclusions have largely spoiled the usefulness of his masterly writings on the heart.

[1] The Practitioner, vol. xliv., p. 251.
[2] Marey: Circulation du Sang, 1881, Fig. 43.
[3] Clinique Médicale de la Charité, p. 542.

In discussing the subject with Professor Potain some time ago I pointed out that the auriculo-ventricular valves might be kept open by the contraction of the auricle, in spite of the commencing contraction of the ventricle, if the two contractions overlapped; and that probably the contraction of the ventricle did begin as Marey, Galabin, Rolleston, and others have maintained, simultaneously with the apex-beat, though the auriculo-ventricular valves do not close then but later—when, in fact, the ventricular contraction can overcome that of the auricle or when the latter ceases. Thus is explained the difficulty which Rolleston has expressed in these words: "The notch which he (Marey) assumes to be caused by the closure of the auriculo-ventricular valves and which is situated about the junction of the middle and upper third of the ascending line is placed too high on the curve to be ascribable to any such cause [Galabin and Potain also place it high on this line]. It is indeed difficult for me to understand how Marey could conceive it possible for the intra-ventricular pressure to rise so high before the auriculo-ventricular valves are closed." The explanation is easy when one recognises that these valves are subject to pressure from both sides and close only when the pressure within the contracting ventricle rises above that in the contracting auricle. Thus, too, is explained why the time of closure of these valves is variable, depending as it does on the relative pressures within the ventricle and auricle. Had Barclay[4] and Dickinson[5] conceived that the events composing the cardiac cycle did not form a distinct but a superposed sequence they would probably have been saved from the error of supposing that the so-called presystolic murmur of mitral stenosis was really ventricular systolic and regurgitant. If the auricular systole precedes and overlaps the first part of the ventricular it at least lasts long enough to be simultaneous with the whole duration of the presystolic murmur; hence the objection that the auricular systole is not sufficiently prolonged to account for the murmur would disappear.

Moreover, I have indicated in several papers[6] that the auricle towards the latter part of its contraction, enclosing then a small chamber, can exert a greatly increased pressure on its contents, a pressure roughly varying inversely as the cube of the radius of the chamber. The auricle, therefore, towards the end of its contraction, in virtue of its smallness and thickness, may be more than a match for the full ventricle opposed to it, and the "auricular-systolic" murmur in mitral stenosis may precede, run up to, *and into* the time of ventricular systole, with the blood passing from the auricle into the ventricle all the while. As one contemplates the delicate valves of the heart, and thinks of the shocks and strains to which physiological theories would subject them, one's faith in much of one's physiological teaching ebbs away. I am thankful to have been led to believe that the aortic and mitral valves have acquired their positions of rest before the support in the one case of the ventricle and in the other of the auricle is withdrawn from them. I can understand also how a stenosed and incompetent mitral valve may be present and regurgitation with its accompanying systolic murmur be absent, as is so frequently found, since the auricle itself by its prolonged contraction in these cases defends the orifice, and I anticipate that with the progress of cardiac surgery some of the severest cases of mitral stenosis will be relieved by slightly notching the mitral orifice and trusting to the auricle to continue its defence.

Mentone, France.

[4] Dr. Barclay: THE LANCET, March 16th, 1872.
[5] Dr. Dickinson: THE LANCET, Oct. 1st and 8th and Nov. 12th, 1887.
[6] Archives de Médecine Expérimentale, No. 5, 1er Sept., 1896; Brit. Med. Jour., Jan. 23rd, 1897, and March 13th, 1897, p. 703; and Le Rôle de l'Oreillette Gauche, Thèse de Paris, 1896.

A CASE OF

NEUROMIMESIS SIMULATING PERFORATED GASTRIC ULCERATION.

BY T. WILSON PARRY, M.A., M.B., B.C. CANTAB.

ON Jan. 2nd of this year I was summoned urgently to attend a case that had been under my previous notice on and off for the past three years. The patient in question was a

young woman, twenty-one years of age, who had suffered about four years altogether from chronic gastric ulceration with two acute and several slight subacute attacks. She was of a highly neurotic disposition, which made one all the more careful and discriminating in making a diagnosis at these times. On the day mentioned above I found her to be in violent pain. Her mother had given her some chicken jelly, which she had immediately vomited, and complained of excruciating pain in the stomach which did not leave her. The muscles of her abdomen were tightly contracted, so that any special examination of that region was extremely difficult. There did not appear to be much abdominal distension. Her pulse was quick and small, but not, to my mind, typically "peritonitic." I explained to the patient's parents the dangerous significance of the symptoms and told them that probably nothing but an operation would save her life. Mr. William Thorburn of Manchester, who happened to be in the immediate neighbourhood at the time, kindly met me in consultation over the case. He confirmed my diagnosis of perforation and on summing up the case we told the parents that if left alone she would most probably die in about three days; if operated upon (stitching up the perforation) the probability would be that she might also die, as the percentage of the mortality after operation in these cases was also very high, but that operation would, on the whole, give her the best chance. After some reflection the parents decided not to have her operated upon. We accordingly followed the usual principles of treatment in these cases—viz., (1) injected morphia subcutaneously at stated times; (2) applied hot, light belladonna stupes to the abdomen frequently; (3) gave nothing but a little ice by the mouth; and (4) fed the patient entirely per rectum. Happily for her an adhesion took place, probably to the liver, and after seventeen days the muscular rigidity of the abdominal walls had entirely disappeared. As things were going on so well I decided to miss seeing her on Jan. 20th, intending to call in as usual on the 21st, but this little detail I omitted to mention to both the mother and daughter. I left the village on the 20th without seeing her and proceeded on my usual round. On reaching another village where they knew I would call I found a telegram awaiting me telling me to return immediately as the case had again assumed a dangerous aspect. Although in my own mind I was convinced there was nothing very seriously amiss, as the patient was still having very little by the mouth and everything she did have in that way was carefully peptonised, I hurried home as quickly as I could. I found the patient lying in bed with her knees drawn up making agonising noises; her face was contracted as if in great pain and on examining her abdomen she made an attempt to wince as if she could not bear it to be touched. During the examination, however, she partially arched her back so that her attempt to simulate abdominal tenderness was completely frustrated as she pressed her abdominal wall against the examining hand. The abdominal wall was perfectly flaccid, being free from every trace of rigidity. One of her drawn-up legs was shaking and on being commanded to put her legs down she did so at once and the shaking ceased. I ordered her a rectal injection of bromide of potassium and chloral and soon after she fell into a comfortable sleep. I found on questioning the mother that the attack had commenced suddenly, as on the previous occasion, but not after taking food. It commenced immediately her mother told her I had left the village so probably would not be calling that day. The interesting points of this case, therefore, seem to be—firstly, the attack commenced directly she was told I was probably not going to call, showing that I considered she was getting better, and this undoubtedly led her to think she would as a consequence be deprived of that extra sympathy she had been having from all her friends during the time she was really in danger; and secondly, she as nearly as possible imitated the onset of her previous dangerous attack when actual perforation was indisputably present. The value of the various symptoms she fully understood as I had explained the reason of each of them to her mother at various times during the previous eighteen days. This I had, perhaps, rather foolishly done before the patient. The two important points, however, which she failed to simulate were (*a*) rigidity of the abdominal walls and (*b*) sickness, both of which omissions helped me in no small way in deciding between "perforation" and its neuromimetic semblance.

Youlgreave.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF ACQUIRED NYSTAGMUS.

BY A. S. PERCIVAL, M.B., B.C. CANTAB.,
OPHTHALMIC SURGEON TO THE CHILDREN'S HOSPITAL, NEWCASTLE-UPON-TYNE.

THOSE who are interested in the subject of "miner's nystagmus" will know that two main reasons have been assigned for its causation — deficient illumination and fatigue of the ocular muscles. The latter view as to its essential cause has been ably supported by Snell, Nieden, Dransart, and others. I bring forward this case as it tends to corroborate this view.

A man came to me at the beginning of this year complaining of dimness of sight. On ophthalmoscopic examination no abnormality was discovered; there was no refractive error, and with test types he read $\frac{6}{6}$ with each eye; his sight was made worse by giving him weak convex glasses. I questioned him as to his work and learnt that he was a railway clerk engaged in adding up figures in a large folio account book in a well-lighted room. I then got him to elevate his eyes to see if that movement induced nystagmus. No nystagmus was seen. On putting a large book in front of him and directing him to adopt the attitude which he usually assumed when at work he bent his head over the book and keeping it fixed raised his eyes slowly, examining the edges of the page from below upwards. A vertical nystagmus was manifest as soon as his eyes were rotated upwards, increasing in extent as his eyes assumed a more strained position. He then complained that what he looked at appeared to dance up and down and that what he meant by dimness of sight was the dancing of the figures during his daily work. On inquiry as to the occurrence of any night-blindness he said he did not think he saw quite as well as other people when the light was defective. I took him therefore into the dark room and on gradually turning down the gas I found that when I could just discern "brilliant" type he could only read "pearl" type at the same distance. My light-sense is presumably normal, so it is fair to assert the presence of some degree of hemeralopia in this case. As I have no photometric apparatus I was unable to say whether his hemeralopia had the peculiar features which are said to be characteristic of that form of it associated with "miner's nystagmus." I assured him that if he gave up his work and got some other employment which did not involve similar ocular fatigue that all his troublesome symptoms would disappear.

The case is interesting as showing what little reliance can be placed on the unconfirmed complaints of patients, and also for the fact that in this case nystagmus only appeared when the patient put himself in the position ordinarily assumed by him when at his daily work. It seems not improbable that many cases of asthenopia in which glasses are of no service may be due to a "muscular asthenopia" or to a nystagmus that has never been detected.

Newcastle-upon-Tyne.

NOTES ON A CASE OF EXTRADURAL CEREBRAL ABSCESS OF AURAL ORIGIN WITH THROMBOSIS OF THE LATERAL SINUS, IN WHICH THE SINUS WAS NOT OPENED; OPERATION; RECOVERY.

BY ADOLPH BRONNER, M.D., M.R.C.S.,
SURGEON TO THE BRADFORD EYE AND EAR HOSPITAL; LARYNGOLOGIST TO THE BRADFORD ROYAL INFIRMARY.

A BOY, aged fourteen years, saw me on Nov. 18th, 1897. There had been an occasional discharge from the right ear for several years, but for the last seven months the discharge had been constant. Six days previously the ear became painful and a swelling appeared behind the ear. The boy

felt very ill and had been in bed for four days. When I saw him his face was flushed, he was partially comatose and he complained of severe pains in the head. He felt very giddy and could not sit up in bed. The neck was slightly stiff on the right side. The temperature was 101° F. and the pulse was 65. The optic discs were congested. Behind the right ear there was a soft red swelling, very painful on pressure. The right membrana tympani was perforated and there was a purulent discharge. It was decided to operate at once. A large incision was made behind the ear extending over the top of the auricle. The ear was then pulled forwards and downwards and the cutaneous external meatus was cut through. The mastoid antrum was opened and was found to be only slightly diseased. The attic, however, was full of granulation tissue and fœtid pus. The basilar groove was laid open with the chisel and a fair quantity of pus escaped. This, however, was not very offensive. The dura mater was grey and thickened. The lateral sinus was hard and evidently thrombosed. As there were no urgent symptoms and the thrombus was possibly non-septic I did not puncture or slit it open. The cutaneous external meatus was incised horizontally and the edges were stitched to the external wound. The wound and the meatus were then plugged with iodoform gauze and dressed daily. On the third day the pulse and temperature were nearly normal and on the fifth day the outer wound was closed and the parts dressed through the external meatus. The boy made an uninterrupted recovery.

This case seems to be interesting from several points of view. The gravity of the symptoms pointed to some serious intracranial lesion, apparently to cerebral abscess. There can be no doubt that there was thrombosis of the lateral sinus and during the operation the question naturally arose whether we should explore and if necessary open up the sinus. It is, I know, customary to explore the sinus whenever it has been exposed, but this procedure seems to be contrary to the most elementary rules of surgery. No surgeon would think lightly of exploring a vein which was surrounded by septic material in any other part of the body. It certainly is a remarkable fact that the healthy lateral sinus is so frequently opened in these cases and without many fatal or even bad results. It was impossible in this case to know if the thrombus was septic or not and I therefore abstained from exploring it. Had I known it to be septic I should not have opened it up unless there had been any signs of septic poisoning or of pyæmia. If any of these symptoms had been present I should have first tied the jugular vein and then removed the thrombus and the diseased walls of the sinus as far as possible. The outer wound was left open for several days so that the parts and symptoms could be carefully watched and so that any further operative interference could, if necessary, have been readily carried out.

Bradford, Yorks.

UNLOOKED-FOR SOURCES OF POISONING.

BY CLEMENT DUKES, M.D., M.R.C.P. LOND.,
PHYSICIAN TO RUGBY SCHOOL AND SENIOR PHYSICIAN TO RUGBY HOSPITAL.

IN the course of every-day life one comes across puzzling cases which require all one's ingenuity to unravel and amongst this class none are more difficult than those of poisoning. Some years ago I was called in consultation to see a case of illness which after a very close investigation could only be interpreted as one of lead poisoning.

The patient was a gardener, and I minutely searched every possible source of poisoning in his house without discovering the cause. Failing in this I then inquired into his habits from rising to retiring to bed and I traced the cause to this. He breakfasted early, went to work, and between 8 and 9 A.M. visited a certain "house of call" to have a glass of beer, where he was usually the first customer. As the beer was drawn by the beer-pump from the barrel in the cellar through a lead pipe he evidently imbibed with his, often probably *hard*, beer his daily dose of lead. This visit was at once given up, he recovered from his poisoning, which has never recurred, and he allows others to have the first glass.

A few weeks ago a young woman called to consult me who evidently had something on her mind and was suffering considerably, which manifestly arose from morphism. After a few visits I elicited these facts. Some years since she had suffered from a painful rectal trouble for which morphia suppositories had been prescribed, which not only relieved her local pain but doubtless produced other general peaceful effects. Feeling very wretched from too long a ride on her bicycle, which made her quite ill, she remembered her suppositories and resumed them, using several daily for a considerable time with the result I have stated.

Rugby.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

HOSPITAL FOR SICK CHILDREN, GREAT ORMOND-STREET.

A CASE OF HIATUS VESICÆ; OPERATION.

(Under the care of Mr. EDMUND OWEN.)

So far as the operation itself is concerned the result in Mr. Owen's case is a perfect success, but the decomposition of the urine is likely to prove a very troublesome complication. In some cases where a bladder has been closed in it has been possible to keep the urine sweet by syringing frequently with weak acid lotions. Mr. Reginald Harrison brought before the Medical Society of London[1] a case of hiatus vesicæ in which he had performed a novel operation. He excised one kidney and about eleven months later he transplanted the right ureter into the loin. The boy was apparently more comfortable and the loin is probably more easily fitted with a collecting apparatus than the pubes; but it is a little difficult to see why the method was not applied on both sides. The mucous surface of the bladder underwent a process of cicatrisation and resembled skin. It cannot be said that there is any really satisfactory method of treatment of hiatus vesicæ. For the notes of the case we are indebted to Dr. G. Templeton, surgical registrar.

A boy, ten years of age, was admitted into the Hospital for Sick Children, Great Ormond-street, at the end of November, 1896. The anterior wall of his abdomen was wanting from the umbilicus to the pubes, as was also the front of the bladder, the lower and back part of the viscus projecting through the gap as a moist, bright red swelling, on which the ends of the ureters were distinctly visible. The extroverted bladder was extremely sensitive. The pubic bones were deficient, and the short penis bore in its whole length a cleft which laid open the urethra from above, in the middle line, through the entire length of the urethra, the glans penis sharing in the epispadias. The dribbling urine caused extensive excoriation of the thighs, which gave the patient great distress. His hair was long and he wore petticoats, partly, in all probability, because of his unsatisfactory sexual development, and partly because they would irritate the parts less than trousers and could more easily be kept clean. He was well nourished and intelligent and he had a particularly good singing voice.

A large flap of skin and subcutaneous tissue was dissected up from the epigastric region and was turned down over the projecting bladder with the raw side upwards. An incision was then made across the front of the root of the scrotum extending a little way on to the thighs, and a second incision was made parallel to it at the back of the scrotum. The testes were then removed, and the scrotum having been detached from the subjacent parts was slipped up over the penis and laid with its deep surface upon the raw aspect of the flap which had been turned down from the front of the abdomen. In this way the bulging bladder was effectually covered in, though urine could still leak out between the

[1] Transactions of the Medical Society of London, vol. xx., p. 356.

lower part of the wide scrotal bridge and the root of the urethral gutter. This cleft served for the easy escape of the urine and so prevented extravasation between the raw surfaces. The boy was kept for some days in a bath of hot boracic lotion. The flaps united, and the cleft at the foot of the urethra was eventually closed. To effect this closure the lower border of the scrotal bridge was vivified; the borders of the split penis and prepuce were also vivified and were then bent up and adjusted to the scrotal bridge. This procedure also proved successful, so that by this time the bladder was completely shut in, the urine escaping by a small chink upon the left side, over which it was hoped an apparatus might eventually be easily and conveniently

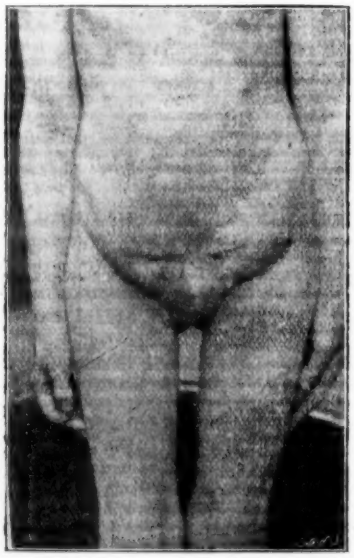


Figure showing the condition of the patient after the operation.

adjusted. But unfortunately the urine collecting in the new water-tight reservoir now undergoes decomposition and thus the space becomes choked with phosphatic deposit; the side of the left thigh is excoriated by the dribbling urine and is encrusted with phosphates which from time to time have to be soaked off by keeping the boy in a hot bath.

Remarks by Mr. OWEN.—Experience seems to show that the unfortunate child with hiatus vesicæ and epispadias is usually in robust health in other respects, so that on the first view of the case the surgeon begins to consider what operative measures will be most likely to diminish the discomfort and unsightliness of the deformity. There are plans innumerable for this purpose, most of them being complicated and all, I think, disappointing. At the meeting of the Harveian Society, where this boy was shown, the general opinion seemed to be that the closing in of the bladder had been completely effected, and I fear that the very completeness of the operation has militated against its value, for in those cases in which the urine freely flows away there is much less discomfort than in a case (such as this) where some of it can be retained. I do not know what the ending will be, but I fear lest septic inflammation should extend up the ureters and involve the kidneys in suppuration. I feel satisfied that it is expedient to remove the testes in hiatus vesicæ with epispadias, and I hoped that in this boy the operation might have the additional advantage of preserving his clear treble voice. But I find in the report of the registrar that "he never sings now." Possibly when he gets down into the country his voice will come back, but at present he looks pale and wretched. The operation has proved a great disappointment, and I cannot but think that though the appearance of the parts has been greatly improved the actual condition of the boy has not by any means been ameliorated. I should very much like to know what is really the best treatment for these miserable cases.

ROYAL INFIRMARY, NEWCASTLE-UPON-TYNE.

TWO CASES OF PERFORATED GASTRIC ULCER.

(Under the care of Mr. FREDERICK PAGE.)

IN some introductory remarks on a case of perforating ulcer of the stomach recorded in the Mirror of Hospital Practice of THE LANCET of Jan. 15th, 1898, p. 158, we pointed out that it was probable that the most important factor influencing the result of a laparotomy for this condition was the length of time which had elapsed between the perforation and the operation. We may put twenty-four hours as the limit beyond which laparotomy can afford very little prospect of recovery unless the peritonitis has been localised. This point is illustrated, with many others of great interest, in the two cases recorded below. In the first case thirty-six hours had elapsed before the abdomen was opened and the patient died; in the second case laparotomy was performed about four hours after the perforation and this patient recovered. Another point worthy of notice in the second case is the fact that two perforations were present. This is extremely rare, though it is by no means unusual for two gastric ulcers to be present at once. A case of double perforation was recorded in THE LANCET in 1895.[1] For the notes of the cases we are indebted to Dr. J. D. Wardale, surgical registrar.

CASE 1.—A woman, aged twenty-one years, was admitted into the Royal Infirmary, Newcastle-upon-Tyne, on Dec. 16th, 1897. She had had gastric symptoms irregularly for some years, but no hæmatemesis. On Dec. 14th she was at a dance, where she ate heartily and danced till a very late hour. In the early morning of the 15th she was seized with a severe pain in the abdomen and vomiting. When seen by Dr. Bishop of Wylam the pulse was quick but there was no collapse. An opiate was given, all food by the mouth was stopped and she was fed per rectum, and in the afternoon she seemed to be very much better. In the evening of the same day whilst being turned on to her side she was again seized with pain and vomiting. Shortly afterwards, when seen by her medical attendant, she was slightly cold, the pulse being rapid and the abdomen distended and tender. Some difficulty was experienced in removing her to the hospital as she was some miles from a railway station. On her admission to the infirmary, about thirty-six hours after the first attack of pain, all vomiting had ceased, the abdomen was very much distended and tender, the extremities and the general body surface were cold, and the pulse was 140. Under chloroform, which was afterwards changed to ether, an incision was made between the umbilicus and the ensiform cartilage. The intestines were enormously distended from general peritonitis. Some recent adhesions were broken down and the stomach was drawn forward. Underneath the liver a large quantity of yellowish fluid of pea-soup consistence was found. This was mopped up. After a great deal of difficulty a small circular perforation of the size of a pea was discovered at the cardiac end of the stomach so high up as to prevent it from being drawn into the wound. Three fine silk sutures were passed through the whole thickness of the stomach wall and tied, thus closing the opening; then five Lembert sutures of fine silk were passed and tied, so covering in and inverting the ulcer. An opening was next made into the abdominal cavity immediately above the pubes and a glass drainage-tube was inserted into Douglas's pouch. The abdomen was irrigated with sterilised water until the fluid escaping from the glass tube was clear. The upper wound was closed completely, the patient having been on the table nearly fifty minutes. During the operation a hypodermic injection of strychnine was given. On her return to bed, the pulse being 170, she was infused with two and a half pints of saline solution and one ounce of whisky; the pulse came down to 148. At 12 midnight as the pulse was failing she was again infused. Ether, digitalin, and strychnine were injected hypodermically later. The temperature gradually ran up to 103·4° F. and the patient died twenty-four hours after the operation.

CASE 2.—A woman, aged twenty-two years, was admitted to the hospital on Jan. 7th, 1898, with pain and tenderness in the abdomen of about three hours' duration. She had never had any previous gastric symptoms, but suffered from

[1] THE LANCET, Aug. 3rd, 1895, p. 264.

anæmia. The history was given that at about 4.30 P.M. she had a very hearty tea; at about 6.15 P.M. she ran to see a neighbour who lived 100 yards away; and at 6.30 P.M. she was seized with severe pain in the abdomen and vomiting. Dr. Clark of Heaton was sent for at 7.30 P.M. and on his arrival he found the patient suffering from great pain and vomiting; the vomited matter, however, contained no blood and the patient was not collapsed. The abdomen was not distended and the liver dulness was unimpaired. He ordered rest, stopped all food, and gave an opiate. On returning an hour later he found the pain to be still very severe, the abdomen more tense, and the normal area of liver dulness resonant. He at once took the patient to the hospital. An incision was made between the ensiform cartilage and the umbilicus. As soon as the peritoneum was divided gas escaped; the peritoneal cavity contained also a large quantity of fluid amongst which currants and raisins were recognised. On the anterior surface of the stomach was found a perforation of about the size of a sixpence, and an inch from this opening was a dark-bluish patch of about the size of half-a-crown, covered with lymph, and in the centre of it was a pin-point opening from which gas escaped. The larger perforation was sutured with catgut, all the walls of the stomach being included in the sutures. This line of sutures was then turned over so as to lie in the centre of the larger discoloured and perforated patch above mentioned, and the walls of the stomach surrounding the two were then sutured carefully together by Lembert's sutures, fine silk being used. An opening was made above the pubes and the abdominal cavity was washed out as in the previous case. At the completion of the operation the temperature was 98·2° F. and the pulse was 128. She vomited at intervals of three or four hours for the first forty hours and complained of great pain. She was very restless and opium had to be given in the enemata. The pulse slowly went up to 140 and the temperature to 102° on the second day. The tube was withdrawn on that day and from then the temperature and the pulse slowly came down, and exactly a week after the operation the temperature became normal for the first time and the pulse as low as 96. Nutrient enemata of beef-tea (three ounces) and whisky (one ounce) were given every three hours for the first thirty-six hours and subsequently every four hours. Twenty-four hours after the operation a hypodermic injection of digitalin was administered, but as the patient was still failing iced champagne was given. The vomiting still continuing ten ounces of hot water were given by the mouth which she immediately returned. On the second day a little chicken essence was given by the mouth and the nutrient enemata were administered at intervals of every six hours. On the third day she had half an ounce of iced milk every hour in place of the chicken essence. After the first week the temperature continued normal and from this date the patient made an uninterrupted recovery, leaving the hospital on Feb. 6th. She has been seen since that date and continues in sound health.

Remarks by Mr. PAGE.—Of the three cases of perforating ulcer of the stomach I have now operated upon two patients recovered, and I consider recovery in each instance was due to the early period at which the abdomen was opened after the perforation—three hours and six hours after respectively. In one of the successful cases the stomach was full, in the other it was empty at the time of rupture. The fatal case was not operated upon till thirty-six hours after the rupture and the patient never rallied from the very serious condition she was in from general peritonitis. In all three cases the abdomen was very thoroughly irrigated.

BRISTOL MEDICAL MISSION.—The annual meeting of this institution was held on March 22nd. The report showed that 7636 new cases had been attended at the dispensary during 1897 and 1680 patients were visited at their homes. The financial statement showed that the income amounted to £481 and that the expenditure came to £672.

PRIZES AT THE BRISTOL GENERAL HOSPITAL.—The Clarke Surgical Scholarship of £15 was equally divided between Mr. H. S. Jenkins and Mr. A. G. G. Plumley. The Sanders Scholarship of £22 10*s.* was awarded to Mr. E. V. Foss and the Lady Haberfield Prize of £29 to Mr. R. Short. The Martyn Memorial Pathological Scholarships were divided as follows: Mr. E. V. Foss £10, Mr. J. E. Long £5, Mr. E. G. Bunbury £5. The Committee Gold Medal was gained by Mr. E. V. Foss, and the Silver Medal by Mr. R. Mackie.

Medical Societies.

MEDICAL SOCIETY OF LONDON.

The Vagus Origin of Asthma and its Treatment.

A MEETING of this society was held on March 28th, the President, Dr. SANSOM, being in the chair.

Dr. E. C. KINGSCOTE read a paper on the Vagus Origin of Asthma and its Treatment. After commenting upon the powerlessness of medicine against asthma Dr. Kingscote went on to say:—

It is pretty generally conceded that the origin of asthma is to be found in the irritation of one or several of the many ramifications of the vagi. Whether it be from the origin in the medulla, from Meckel's ganglion as in hay fever, from a superior laryngeal, from ear mischief through Arnold's nerve, through the pharyngeals, through the recurrent laryngeal, through pressure on the main trunk in the neck (Mr. Treves permits me to quote a case of his in which the severe spasms of asthma were set up by the pressure of cancerous glands in the neck on the vagi), through irritation of the heart, lungs, stomach, liver, spleen, bowels or sympathetic system, it is difficult to evade vagus origin. Further, there must be some comprehensive means of setting in motion even a small fraction of the muscles which envelop the (according to Professor Rutherford) billions of bronchioles which exist in the lungs. Also, there is one, and only one, known means of artificially producing asthma, which is as follows. If we chloroform a dog and divide the left vagus and gently stimulate the proximal end with electricity, in addition to other phenomena we produce *asthma in the right lung and tonic contractions of the right half of the diaphragm*. In addition to these ascertainable causes of vagus origin, however, there still remains a large class of obscure cases whose origin is unascertainable and I will endeavour to suggest that it is precisely from these obscure cases that we shall possibly derive the light which may illuminate the obscurity.

In treating chronic heart lesions it happened that some few of my patients suffered from asthma. They did not consult me for asthma (they had already exhausted medical opinion on that score), but to my intense astonishment some of these cases, and only some, entirely lost their asthma. I further observed that it was precisely those cases which had no ascertainable cause of asthma that got well and later that those of such cases which recovered invariably had a deep-seated dilatation of the heart and that the improvement in the asthma marched with the reduction of the cardiac dilatation. I had already in an article on the Schott Treatment[1] remarked that the amount of space taken up in the thorax by the enlarged heart suggested a train of thought highly instructive in dealing with certain obscure symptoms, among which the following may be instanced as direct effects of pressure: (1) mid-sternal pain from pressure against the sternum; (2) suffocation from pressure on the lungs, vagus, and diaphragm; (3) brachial pain, tingling, numbness, and coldness from pressure on the plexus and axillary artery in the space between the first rib and clavicle; this may happen, the shoulder being fixed from the dilated heart pressing the ribs outwards and upwards; I have been a sufferer from brachial neuritis for six months under the care of Sir William Gowers and frequently found that on fixing the shoulders and therefore the clavicle and taking a deep inspiration pain was immediately felt where the branches of the plexus pass under the clavicle; (4) Pain from neuritis of the intercostals from intermittent pressure of the dilated heart; (5) referred pain in distant parts; (6) pressure on the vagus causing (*a*) intermittent action of the heart by alternately stimulating and paralysing the cardiac inhibitory fibres; (*b*) gastric disorders of various kinds; and (*c*) cough, &c., from stimulation of the recurrent laryngeal nerves; in one case, severe pain in either ear supervened without any local origin and subsided when the dilated heart was reduced, although it had previously resisted every sort of local application suggesting interference with Arnold's nerve; (7) interference

[1] THE LANCET, March 21st, 1896

with nutrition through pressure on the thoracic duct; (8) obscure vascular conditions such as angina pectoris possibly due to pressure on the sympathetic system exaggerating the arterial tone (I found the heart considerably dilated in a case of true angina pectoris in which the patient complained of a severe thoracic fulness with pain in the back and left arm before each attack); (9) pain between the shoulders, partly due to backward pressure of the heart, by the pain leaving the back and establishing itself in the præcordial region on the assumption of the prone position; and (10) sub mammary pain. This is often due to pressure of the cardiac apex against the ribs and intercostals, as is proved by the shifting of the pain correspondingly to the change in the position of the apex and to its disappearance on the reduction of the heart to the normal size.

I have seen all of these symptoms yield to the "Schott treatment." Now considering that one-thirteenth of the body-weight is blood a large dilatation of the heart, say, of the size of a football (not at all an uncommon condition), is a very heavy tumour and weighs about as much as half a bucket of water, and the heart flops in the direction of gravity and in the supine position can exert considerable pressure on those structures which lie behind it. On making a deep dissection of the chest we find that the vagi pass behind the heart and lie in close contiguity to the bony spine, so that the heavy heart can exert a pressure on their main trunks, and not only that, but with the heart beat the nerves are hammered as though on an anvil. I will now read brief notes of ten of these obscure cases, only alluding to those facts which bear on the point at issue.

CASE 1.—A male patient was seen in consultation with Sir Felix Semon. He had endured asthma from birth. He consulted me in August, 1897. The left heart was then two and a half inches outside the nipple line. The nasal mucous membrane was enormously swollen and the heart was completely covered by emphysematous lung. Asthma was constant. After six weeks' treatment with baths, oxygen, and exercises, and removal of the thickened membrane, the asthma disappeared and the emphysema was very much reduced. The heart became normal. A letter from him on Dec. 23rd, 1897, said: "I am keeping perfectly well and entirely free from asthma."

CASE 2.—A male patient, aged twenty-nine years, was seen in consultation with Dr Ord; asthma of twenty years' standing was now constant; he had suffered from influenza three times. The margin of the left heart was two inches outside the nipple line; there was much emphysema. After six weeks' treatment with baths, oxygen, and exercises the asthma disappeared, the heart became normal, and the emphysema was much reduced. On March 14th the sense of smell returned, which had been absent for many years.

CASE 3.—A male patient (seen in consultation with Dr. Fletcher Little), aged forty-one years, had suffered with asthma from boyhood which began after a severe strain. The left heart was dilated and there was much emphysema. After six weeks' treatment he lost his symptoms. A letter from the patient's father dated Jan. 13th says: "My son has now been with us five days and we have had the opportunity of observing the complete change the treatment has wrought in him not only in general health but in entire loss of his asthma." This patient after having lost his asthma had a cab accident and the heart's dilatation and asthma returned, but both disappeared on treatment simultaneously.

CASE 4.—A female patient (seen in consultation with Mr. Scott of Bournemouth in 1896). A woman of very full habit, aged sixty-three years. There was huge dilatation and suspected fatty condition of the heart brought on by the successive deaths of three of her children. In 1887 she suffered from cardiac asthma, with great debility on the least exertion. There was mitral regurgitation. After six weeks' treatment the asthma disappeared and the heart became normal. There was recurrence of the symptoms on the death of a fourth child.

CASE 5.—A female patient (seen also in consultation), aged forty years, had severe asthma at thirteen years, which disappeared for twenty years when it came back after four attacks of influenza. There were five inches of dilatation. Every autumn she had either to live in bed or go to Algeria. After seven weeks' treatment the heart became normal and the asthma disappeared. She had bronchitis but no asthma and went through a London season, taking a cold bath in the morning. In the autumn of the same year I received a letter from her mother in Nauheim saying that her daughter was very ill with gastric ulcer but had no asthma.

CASE 6.—A female patient, aged seventy-one years, was seen by me in April, 1897. The left heart was dilated four inches from long-continued strain and repeated shocks; asthma was constant. After six weeks' treatment the asthma disappeared and the heart became normal. She is at present quite well.

CASE 7.—A female patient, aged fifty-nine years, was seen by me in October, 1897. Her symptoms were a dilated heart from worry and influenza and asthma on exertion, especially in the autumn. After six weeks' treatment everything became normal. In a letter received in February last she says: "About the asthma I am not really at all troubled with it now and feel much less oppression in chest and altogether. I can go up and down stairs and take a walk of a mile or so often with pleasure."

CASE 8.—A boy, aged fourteen years, was seen by me in June, 1897. The left heart was dilated. He had hay asthma as well as asthma on exertion. After fourteen days' exercises only the heart became normal. The attack of hay fever disappeared after two days' exercises and has not since returned.

CASE 9.—A female patient, aged sixty-four years, was seen by me in September, 1897. The left heart was dilated; there was mitral regurgitation and asthma on exertion. After five weeks' treatment the heart became normal and the asthma disappeared, but there was recurrence of the conditions and asthma after a carriage accident.

CASE 10.—A male patient, aged fifty-six years (seen in consultation with Dr. Symes Thompson in December last). There was asthma of forty-six years' standing. The left heart was dilated and there was much emphysema. After six weeks' treatment the heart became normal, the emphysema was much reduced, and the asthma improved to the extent that whereas formerly cold air produced an attack lasting some days the symptom now disappears on entering a warm room. On March 19th last I heard from the Riviera that this patient had not lost his asthma.

Cases 2, 3, 4, and 9 almost prove the asthma to have been due to cardiac dilatation from the fact that after the symptom had departed it re-appeared on the reproduction of the dilatation. In Cases 2 and 3 the asthma again disappeared under treatment, as it doubtless would have in Cases 9 and 4, had they again come under treatment. In Case 1 we have two causes of asthma: (1) thickened nasal mucous membrane and (2) cardiac dilatation, which were removed by Sir Felix Semon and myself respectively, with the result of complete recovery of the patient. Case 10 is Heaven-sent to save us from a subtle suggestion of selecting our cases which inevitably obtains in connexion with new departures. Case 10 is, however, quite alone amongst the cases quoted in his misfortune and has the sad satisfaction of posing as the exception which goes to prove the rule. However, I have not yet given up all hope of a good result even here as it is proverbial that disturbance of nerve impulses takes a long time to recover from (*vide* the various pareses), and it is just possible that the rapid relief obtained by all the other cases may have been a coincidence and that these patients' nerves possessed extraordinary recuperative powers. Further, there may have been some other form of irritation, such as a small and benign thoracic tumour, or there may have been some central lesion which we failed to make out. Since writing the above Dr. Groedel of Nauheim happened to call on me and he tells me that he has repeatedly observed an improvement taking place in cases of asthma and a reduction of the concomitant emphysema with the Nauheim treatment, especially when the asthma was cardiac. He published observations to this effect in 1880 in the *Berliner Klinische Wochenschrift* entitled "Pneumatometrische Beobachtungen über den Einfluss verschiedener Bäder auf die Respiration."

Now there are two obvious criticisms which naturally occur to us: (1) If these things be why are these cases not oftener diagnosed? and (2) Why do not all cases of heart dilatation have asthma? They are not often diagnosed because in asthma of any long standing there is usually a large amount of emphysema, which makes accurate percussion of the heart's margin very difficult. The asthma need not occur where the dilatation is very great, for the heart flops over on either side of the bony spine and thereby assumes a hollow conformation immediately over it, by which means perhaps the vagi escape pressure.

There is no time to-night to enter into the details of treatment, but I will just say that my methods consist of a considerable modification of the "Schott Treatment" combined with the inhalation of free oxygen gas twice daily in those cases which are due to cardiac dilatation. The inhalation of oxygen gas seems to relieve the paroxysm which is conceivable, as the remote cause of asthma under certain conditions must be the appetite of the blood for oxygen. I wish it to be very clearly understood that I am not advocating a panacea for asthma, but it has so happened that the study of one class of asthma cases—viz., those with cardiac dilatation—has led to researches which may possibly throw light on the rest. I have used a modification of the "Schott" methods to reduce these dilatations. Others may prefer to arrive at the desired destination by a different route. If I have succeeded in exciting the interest of the profession in a matter which to me is an absorbing one I have not written in vain.

Dr. THEODORE WILLIAMS had learned with interest that in certain cases of asthma it was worth while to try the Schott treatment. But he was not quite convinced by Dr. Kingscote's remarks as to the pathology of the affection as he thought that it was generally held that asthma was a neurosis and that the posterior pulmonary plexus was principally affected. Now this plexus contained sympathetic and spinal filaments as well as vagus fibres. He thought also that the treatment by ordinary methods was not as unfavourable as had been implied, although some cases were

very obstinate. He strongly advocated the employment of iodide of potassium in ten-grain doses three times a day. In other cases the employment of the compressed air bath had been found most beneficial. That asthma was by no means incurable was often shown in the case of children, who developed spasmodic asthma after whooping-cough or measles probably through the irritation of enlarged glands. They also were relieved by iodide of potassium and usually entirely lost their asthma as they grew up.

Sir FELIX SEMON did not think that the conditions in the frozen section shown by Dr. Kingscote were quite the same as in the living body and he could not follow him in his suggestion that the vagi were hammered by the heart as on an anvil. There were many cases of asthma which resisted ordinary drug treatment and it was important to recognise if there were a dilated heart. In his case, which had been mentioned, owing to the amount of emphysema, he had been unable to make out the enlargement of the heart. The asthma had existed from birth, and on examination he found thickening of the nasal mucous membrane. He was not one of those who considered this at all a common cause of asthma, although a few cases benefited by operation. He agreed with Dr. McBride that the operation in the successful cases acted as a strong counter-irritant, but as his patient desired to have the treatment he cauterised the nose before he was treated by Dr. Kingscote. He could corroborate the statement that he had been entirely free from asthma since either from the removal of the nasal trouble or from the treatment of his heart condition.

Dr. THOROWGOOD said that the cases described were evidently those of cardiac asthma and appeared to be quite distinct from spasmodic asthma. The difference between the two classes was well illustrated by the different effects of remedies. In one case of cardiac asthma, for instance, ordinary cardiac remedies did a man good for a time, but he obtained most relief from inhalations of oxygen, while fuming inhalations made him worse. At the same time a little boy was under treatment with severe spasmodic asthma and he was relieved by citrate of caffeine and fuming inhalations, while oxygen increased his discomfort.

Dr. MAGUIRE thought that it was impossible for the heart to exercise such pressure as had been described. It seemed to have been forgotten that there was negative pressure within the thorax. Besides, according to physiological teaching asthma from irritation of the vagus would be expiratory in character, while clinically asthma was inspiratory as well. He had often seen cases of asthma in which there was no dilatation of the heart. In the patient shown to the society asthma had begun when he was eight years old and yet the condition of his heart had been sufficiently good for him to be passed for the army. He thought the view that asthma was due to spasm of the muscles of the bronchi was a pure assumption. It was difficult to believe that such spasm could be so universal or so prolonged as it was in many attacks of asthma. In cases of spasmodic asthma there were, first, sudden dyspnœa coming on early in the morning, then ineffective cough, and later expectoration of tenacious mucus often containing Curschmann's spirals. There was evidence of congestion, if not of inflammation, of the mucous membrane. Attacks similar to these were seen affecting the larynx in the "false croup" of children in which the larynx could be seen by actual inspection to be congested. The value of anti-spasmodic remedies could be explained by their action on the muscularis mucosa rather than on the circular muscular fibres.

Dr. MORISON remarked that although the particular vagus theory of cardiac asthma propounded by Dr. Kingscote was, in his opinion, untenable on anatomical grounds, yet a neurotic reflex causing dyspnœa might arise from various organs, and he instanced gastric and intestinal catarrh and the cardiac stretching due to intra-cardial pressure as sources of such phenomena. The relief of such asthmatical attacks by the removal of the causes mentioned supported this view. He disputed the actual occurrence of the enormous dilatations and shrinkages of the heart referred to by Dr. Kingscote and maintained that altered position of the heart with moderate diminution of its bulk under the Nauheim and other methods of treatment accounted for the changes clinically found. He communicated the views of Dr. Groedel of Nauheim as to the utility of Nauheim baths in the treatment of dyspnœa primarily dependent upon the state of the heart and that in which the heart was secondarily affected in consequence of emphysema, but stated that Dr. Groedel considered so-called idiopathic asthma as unsuitable for treatment by this method.

Dr. SYMES THOMPSON said that one of his cases had been mentioned in the paper. It was a long-standing one of spasmodic asthma. There was considerable dilatation of the right side of the heart, but he did not think that it was primary. Chronic cases of asthma often benefited greatly by going to some spa, such as Malvern or Buxton, where they could have supervision of their diet, exercise, &c., and Dr. Kingscote had shown that certain cases might obtain benefit from a course of baths and exercises.

The PRESIDENT thought that the physiological explanation given by Dr. Kingscote was not convincing. Dr. Morison had suggested that the increased intra-cardiac pressure might be a factor. He (Dr. Sansom) thought that it was possible that the stretching of the pericardium, which was a very unyielding structure and intimately associated with nervous plexuses at its root, might also be a factor.

Dr. F. LUCAS BENHAM said that in several of the cases mentioned that evening the asthma had existed from childhood. At what age was it supposed that the cardiac condition developed?

Dr. KINGSCOTE, in reply, said that he had not intended to enter exhaustively into the physiology of the vagus, but he wished to draw attention to those cases of asthma in which the asthma had disappeared when the cardiac dilatation was remedied. It had been objected that the heart being a fluid tumour could not produce sufficient pressure on nerve trunks, but such pressure effects by an aneurysm were well known. He would explain the value of iodide of potassium by its well-known effect in lowering blood-pressure. He hoped to demonstrate the enormous dilatation of the heart which he had described on some future occasion.

CLINICAL SOCIETY OF LONDON.

Inter scapulo-thoracic Amputation of the Upper Limb.—Ileo-sigmoidostomy.—Acute Infective Ascending Myelitis.

A MEETING of this society was held on March 25th, the President, Mr. LANGTON, being in the chair.

Mr. G. BARLING (Birmingham) read an account of two cases of Inter-scapulo-thoracic Amputation for Sarcoma of the Humerus, both resulting in recovery. The first patient was a male, aged fifty-three years, whose history showed that the tumour commenced three and a half years previously, at which time there was spontaneous fracture of the humerus. When the patient presented himself for treatment the upper two-thirds of the right arm was occupied by a huge growth which overlapped the shoulder-joint, the outer end of the clavicle and the spine of the scapula, filled the axilla, and stretched under the pectoral muscles. The vertical measurement around the axilla was 27 in., 10 in. more than on the left side, the girth of the arm being 23 in. The growth was diagnosed as a myeloid sarcoma and the entire upper extremity, arm, scapula, and outer two-thirds of the clavicle were removed by a slight modification of Berger's method. The patient made a good recovery, but six months afterwards was the subject of many secondary growths. The second patient was a male, aged thirty-seven years, whose history was of about seven months' duration. The growth occupied the upper two-thirds of the arm and encroached upon the shoulder-joint. The diagnosis made was periosteal sarcoma of the humerus and, as in the first case, Berger's amputation was performed, as ablation at the shoulder-joint seemed likely to be followed by speedy recurrence. The patient recovered, though he was for some time in jeopardy from a severe attack of pneumonia. The patient was shown to the society. He had been at work for some months, was in excellent health, and fifteen months after the operation there was no recurrence. The chief departure from Berger's method was that in each case the axillary vein was ligatured through the anterior flap instead of being tied in the same position as the artery—namely, the third part of the subclavian. A collection of nineteen cases recorded since 1890 shows that all the patients recovered, indicating that the mortality of the operation, previously estimated at 21 per cent., was too high. At the Birmingham hospitals during the last ten years this operation had been performed eight times, all the patients recovering.—Mr. STANLEY BOYD said that a few weeks ago a man, twenty five years of age, was admitted under his care to Charing-cross Hospital on account of a large sarcoma in the left

axilla of about the size of two fists. As it did not appear to involve bone an attempt was made to extirpate it, but owing to its involving the axillary vein and brachial plexus this was found to be impracticable. The patient therefore gave his consent to the complete removal of the upper limb by Berger's method and this was done a few days ago by Mr. Boyd. Some slight modifications were necessary. The axillary vein was not well exposed by the resection of the middle third of the clavicle, as Berger recommended, and almost all the inner third had to be removed. There had been no unpleasant symptoms except some pain on movement of the head and some tenderness and swelling about the transverse processes of the cervical vertebræ. Mr. Boyd thought that probably this was because the arm was not sufficiently supported during the operation, so that for a time it hung by the levator anguli scapulæ. In a paper recently read by Mr. Clinton Dent before the Royal Medical and Chirurgical Society he had drawn attention to the importance of dividing the brachial plexus early in the operation and so diminishing shock. This was not nearly so great as would be expected. On one occasion he had amputated at the shoulder when he thought that Berger's operation ought to have been done, but he was then unnecessarily afraid of shock.—Mr. W. G. SPENCER said that it would always be necessary to modify Berger's procedure to meet individual requirements. Several years ago he had brought before the society a case in which he had performed Berger's operation. The case was one of cystic sarcoma and he had found, like Mr. Stanley Boyd, great difficulty in getting at the axillary vein and he had to remove the greater part of the inner third of the clavicle. He had to modify his flaps as the skin was involved and to take skin from the front of the arm. Except that part of the flap died the wound healed well and there was no shock from the operation. In one of the cases which had been mentioned there had been involvement of a gland. He thought that this occurred more often in cases of sarcoma than was usually described, as a rule in rapid and malignant cases. He mentioned a case in which he performed amputation for a large sarcoma of the lower end of the femur. There was considerable involvement of the glands in Scarpa's triangle, which he cleared out at the time of operation. Ten months later the patient was well and free from recurrence.—Dr. KINGSTON FOWLER asked whether there were any signs of collapse of the upper lobe of the lung at the time when there were fever and an increase of the pulse-rate and respiration rate or whether such a complication had been recorded in any of the published cases.—The PRESIDENT asked if this operation had not been performed many years ago. He thought that it had been done by Cheselden a century and a half since.—Mr. BARLING, in reply, said that the difficulty of securing the vein through the opening made in the clavicle led him after ligaturing the artery in the first place to secure the vein lower down in the anterior flap. It was quite true that most of the clavicle had to be removed if one was to expose the vein satisfactorily, but owing to the special risks of operation in this position he thought it best to secure the vein in the way he had described. There was nothing in the physical signs to suggest collapse of the lung, but there was some pneumonia. Although the operation had been done by earlier surgeons, Berger had the credit of being the first to lay down definite directions about procedure.

Mr. BIDWELL related a case in which he had performed Ileo-Sigmoidostomy in order to close an Artificial Anus at the Umbilicus. The patient, a man, aged twenty-eight years, had been admitted into the West London Hospital with obstruction from stricture in the splenic flexure. Considering that the tumour was malignant and its removal was impossible a colotomy of the transverse colon was performed with complete relief of the symptoms. After six months the patient wished to have the colotomy wound closed as the fæces were always semi-liquid and were practically always coming away. As the colotomy had been done by Mr. Bidwell's method, in which the colon is completely divided and a bridge of skin made between the two openings, no local operation for closing the artificial anus could be done, so the abdomen was opened again and the ileum united to the sigmoid flexure by lateral anastomosis according to Halsted's method. After the operation about one half of the fæces passed per rectum and the remainder by the colotomy opening. Two months later, in order to drain the whole of the contents through the anastomotic opening, the abdomen was reopened and the portion of the ileum between the cæcum and the anastomosis was divided transversely and the two ends were invaginated on themselves. This proceeding was completely successful. The patient seems now quite well and as the growth in the splenic flexure has decreased in size it was suggested that the original mischief was inflammatory and not malignant. Mr. Bidwell suggested that as the comfort of the patient after an ileo-sigmoidostomy was so much greater than after a colotomy the operation was preferable in cases of irremoveable tumour of the ascending or transverse colon. He also recommended the operation in acute obstruction in these regions. He had performed ileo-colostomy recently in the case of a woman, aged sixty-six years, with obstruction by irremoveable growth in the cæcum, with an entirely satisfactory result.

Dr. BUZZARD and Dr. RISIEN RUSSELL related a case of Acute Ascending Myelitis with an account of the bacteriological examination. A man, aged thirty-six years, came under the care of Dr. Buzzard at the National Hospital for the Paralysed and Epileptic with the following history. His illness began with weakness of the left leg a month before he was seen, the right leg became similarly affected, and difficulty in passing urine was experienced. Ten days before admission he suddenly lost the power in both legs and control over his bladder. Numbness spread up the legs to the trunk, he experienced pain between the shoulders, and slight weakness which existed in the arms became much worse the day before he came to the hospital, when he also had slight difficulty in swallowing. A gleet existed six months before he was admitted to the hospital and he contracted syphilis six months before that. On admission there was complete flaccid paraplegia without dropping of the feet and the muscles of the abdomen and the thorax were paralysed. There was marked weakness of the hands without affection of the other segments of the limbs on the left side, but with weakness of flexion at the wrist on the right side. Respirations were diaphragmatic. The discs and fundi were normal. Anæsthesia and analgesia were present as high as the first intercostal space and along the inner side of both arms to the styloid process of the ulna. There was an acute bed-sore on the buttocks. The knee-jerks were absent. There were overflow and incontinence of urine. The heart and lungs were normal. The pulse was 102 and the respirations were 32. The temperature was 102° F. The day after admission weakness extended to all movements at the wrists and anæsthesia spread so as to involve the right hand with the exception of the thumb and radial border, while on the left hand the third and fourth fingers were alone involved. A day later the triceps became weak on both sides; there were hiccough, abdominal distension, and incontinence of fæces. On the afternoon of that day the temperature rose to 103·4°, and by the evening both arms were completely paralysed. At 1 A.M. on the third day after admission respiration was more feeble, he became cyanosed, and there was œdema of the lungs. Death resulted a quarter of an hour later. Vigorous anti-syphilitic treatment was carried out and was supplemented by injections of strychnine without any effect. At the necropsy marked meningo-myelitis was found, apparently most intense in the lumbo-sacral region of the spinal cord, but existing throughout the cord, the meningitis extending to the base of the brain and along the lower part of the convexity of both hemispheres. On section the cord was found to be greatly engorged, softened, and with numerous hæmorrhagic extravasations. The spleen, though considerably enlarged, was firm. The lungs were engorged and œdematous. Subsequent microscopical examination of the central nervous system confirmed the existence of pronounced meningo-myelitis; but the changes in the cord were found to be more marked in the cervical region than in the lumbar, this being contrary to what appeared to be the case on macroscopic examination. A diplococcus was found in the exudation in the meninges and in the substance of the cord. Pure cultures of the same organism were obtained on artificial media. It grew well at a temperature of about 38° C. on different media, including blood serum, and grew exceedingly slowly in gelatin at the temperature of the room. It proved to be markedly aerobic with very little anaerobic properties and did not liquefy gelatin. The diplococcus stained by the ordinary aniline colours and was decolourised by Gram's method. It proved pathogenic to mice and guinea-pigs, death resulting within twenty-four hours after inoculation; but a cat survived for a week, at the end of which time it was killed by an overdose of chloroform. Dr. Buzzard and Dr. Risien Russell regarded the patient's illness as due to

the action of some infective agent, and that it was probable that the presence of the diplococcus was not accidental, but that it was intimately associated with the etiology and pathology of the disease; they, however, considered that in the present state of knowledge of this subject it was better to record the occurrence of the diplococcus in association with the meningo-encephalitis without speculating too much as to the possible or probable significance of the association. There were many points in common between this diplococcus and the diplococcus intracellularis of Weichselbaum and that found by Still in association with posterior basic meningitis of infants. Attention was called to the want of uniformity in the bacteria found in cases of acute ascending paralysis and to the lesions which have been found in the nervous system in these cases, varying from no detectable morbid change to the most profound alterations, as in the present case, the former group rapidly becoming smaller with the introduction of improved methods of detecting minute changes in the nerve elements. From the clinical evidence alone it was clear that the present case belonged to the class of cases of acute ascending myelitis rather than to the group of so-called Landry's paralysis. In the latter class of cases sensibility, if present, was slight, while in their case there was complete anæsthesia and analgesia over a wide area. The acute bedsore was of similar diagnostic significance, as was the affection of the sphincters, though to a less degree.—Mr. SPENCER asked if there was supposed to have been any connexion with the previous attack of gleet or if diplococci had been found in the urethra. He mentioned a case in which he found the same diplococcus in the urethra, the joints, and the conjunctiva. It was important to try to find out the point of entrance of the poison. Similar ascending paralyses had been seen in hydrophobia and after surgical procedures.—Dr. G. F. STILL said that the diplococcus described by Dr. Buzzard and Dr. Russell differed in several important respects from that which he had found in cases of posterior basic meningitis, in growing better on blood serum, in growing at all on gelatin, and in having been shown to be lethal when injected under the skin of a mouse. Inoculations from his bacillus on various animals had been absolutely innocuous. He asked as to the size of the organism. In one case of meningitis in a syphilitic child he had isolated an unusually large diplococcus. He asked whether organisms were found in the substance of the cord as well as in the membranes. — Dr. BUZZARD, in reply, said that the merit of the pathological investigation rested entirely with Dr. Russell. He referred to the case brought before the society four years ago by Dr. Mott of acute infective neuritis due to a diplococcus. In that case Dr. Arkle injected filtered cultures into animals with absolutely negative results. The case brought before the society that night was quite distinct from Landry's paralysis, in the presence of anæsthesia and of sphincter troubles. The serious condition of the patient precluded any investigation of the electrical reactions of the muscles.—Dr. RISIEN RUSSELL, in reply, said that unfortunately at the time of the necropsy he was unaware that there was a history of gleet and consequently no examination of the urethra was made. The diplococcus was found in the substance of the spinal cord in stained sections. The diplococcus was a small one, closely resembling Weichselbaum's in appearance. He had lately examined another case of infective myelitis in which he obtained cultures from the cord substance, but not from the membranes.

ÆSCULAPIAN SOCIETY OF LONDON.

Tuberculous Disease of the Os Calcis and Astragalus; Syme's Amputation.—Sarcoma of the Upper End of the Ulna; Amputation.—Premature Labour.—Myelitis.—Recurrent Popliteal Abscess.

A MEETING of this society was held on March 25th, the President, Dr. B. G. MORISON, being in the chair.

Mr. J. MACDONALD BROWN showed a Foot removed by Syme's Method from a boy on account of Tuberculous Caries of the Calcaneo-Astragaloid Surface secondarily to removal of the Calcaneum Subperiosteally.

Mr. J. MACDONALD BROWN also showed a specimen of Sarcoma connected with the Periosteum of the Upper End of the Ulna of a man aged seventy-six years. The growth appeared two months after a fall on the elbow and was then of the size of a Barcelona nut. Fourteen months later it was of the size of half a small orange. A circular amputation through the lower third of the humerus was performed. The man at the fourth day was doing well.

The PRESIDENT read notes of a case of Premature Labour in a patient, aged thirty-six years, anæmic, neurotic, inclined to be alcoholic, who suffered considerably from abdominal pain during the pregnancy. At six and a half months she was found to be vomiting, with abdominal pain, cold extremities, a pulse scarcely perceptible with a rate of 130 per minute, and collapsed. From this she rallied. Spontaneous delivery took place in sixteen hours. For the next six days there was a moderate pyrexia, the highest record being 101·8° F. From the third to the seventh day vomiting was very obstinate, but yielded to bromides, bismuth, and antipyrin.

Dr. E. F. WILLOUGHBY read notes of a case of Myelitis in a man, aged twenty-four years, whose first symptom was retention of urine. On the third day there were complete paraplegia and tactile anæsthesia up to the buttocks and Poupart's ligament, with much pain in the left ilio-inguinal region increased by passive movements. At the end of the first week he seemed to be sinking. In the second week obstinate constipation and several large bed-sores developed, the temperature oscillating between 100° and 102° F.; he was then collapsed and the urine contained blood and pus. The temperature became normal in six weeks and in ten weeks the bed-sores were granulating; in twelve weeks there were marked atrophy of the muscles and rigid flexion of the legs and adduction of the thighs; tactile anæsthesia existed to the mid-lumbar region and umbilicus; there were night sweats; the bowels acted daily involuntarily and unconsciously.

Mr. A. WOODWARD read notes of a case of Recurrent Popliteal Abscess in a man, aged thirty-five years, who was well till a week before admission at the Metropolitan Hospital. On admission he complained of pain about the knee, which he kept partially flexed. The temperature was 104° F. Some slight thickening was detected about the inner side of the lower end of the thigh, where was the scar of an abscess of three years previously. Six days later the scar bulged. Incision was made and 300 c.c. of pus escaped. No bone disease was detectable. The abscess healed rapidly.

DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND.

Exhibition of Cases.

AN ordinary meeting of this society was held on March 23rd at 20, Hanover-square, Dr. J. F. PAYNE, President, being in the chair.

Dr. PAYNE showed a case of Leprosy in a woman aged about fifty years. She was a native of Riga. The patient's face was very characteristic, as were also the velvety feel and the appearance of the skin of the limbs. There were no anæsthetic symptoms. There was no history of heredity. It was stated that fish was but little eaten in Riga and that this small quantity was nearly all taken from the river. The patient's relations apparently did not recognise the disease as one common in their neighbourhood, but in the remarks that followed upon Dr. Payne's introduction of the case Dr. ABRAHAM stated that he knew of 19 cases in or about Riga. He also gave his views as to treatment, giving his practical experience of the horse serum treatment, and mentioning also Dr. Crocker's treatment by hypodermic intra-muscular injections of mercury.—Mr. PERNET stated his belief in the temporary relief afforded by the mercurial treatment. The patient is at present being treated at St. Thomas's Hospital by Dr. Payne with Chaulmoogra oil.

Dr. PAYNE also showed a man, aged forty-five years, suffering from persistent Erythema. The disease had existed for fourteen months. The face and hands were free from the disease, but the covered parts of the body were very conspicuously attacked. The lymph glands were enlarged wherever they could be felt. There was no specific history. When Dr. Payne first saw it he thought it was an early stage of dermatitis herpetiformis. The treatment adopted was quinine internally and sea-water baths locally. The treatment had been markedly successful.—Dr. A. EDDOWES suggested the name of erythema multiforme for the disease.

Mr. W. ANDERSON brought forward a case of Chronic Eruption on the Legs in a girl, aged twenty-four years. She had been previously shown before other societies. She was a delicate looking girl with a phthisical history and was born in India. The tubercle bacillus had not been found locally. She had been variously treated with no good results. He did not know what to call the disease, but he thought possibly it was erythema induratum (Bazin's legs) modified by scar tissue, or perhaps that it might be called lichen planus hypertrophicus.—Dr. PAYNE did not know what to call it.—Dr. PYE-SMITH thought it might be a tuberculous eruption and instanced the colour, the cicatrisation, and the occasional pustulation.

Dr. ABRAHAM brought forward several interesting cases: (1) Extensive Herpes Zoster in a man; (2) Eczema in a man; (3) Annular Impetigo Contagiosa in an infant; and (4) Lupus Erythematosus in a woman.

Dr. A. EDDOWES showed a case of Arsenical Pigmentation in a man.

Dr. SAVILL showed a case of Purpura in a young man.

Dr. SEYMOUR TAYLOR exhibited a case of Bromide Eruption in an infant. Bromide of ammonium had been given to relieve the irritation of teething.

Dr. F. RUFENACHT WALTERS showed a woman, aged about forty years, suffering with Myxœdema. She had been treated with thyroid tabloids from time to time with varying benefit.—Mr. PERNET suggested that there might be some connexion between the involution of the genital organs and atrophy of the thyroid; he gave many interesting reasons for his conclusions.—Dr. SEYMOUR TAYLOR and others also joined in the discussion.

Dr. WALTERS also showed a case of Lichen Planus.—Dr. PHILLIPS-CONN and Dr. A. EDDOWES remarked upon this case.

Dr. WALTERS also showed a case for Diagnosis.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

Exhibition of Cases and Specimens.—Choledocho-duodenostomy.—Incipient Insanity.

A MEETING of this society was held on March 17th, the President, Dr. SINCLAIR WHITE, being in the chair.

Dr. PORTER showed a patient suffering from Progressive Muscular Atrophy of the Aran-Duchenne type beginning in the extensors of the forearms, subsequently involving the muscles of the thenar and hypothenar eminences in both hands, and lastly the left deltoid muscles. The patient was a dressmaker, aged only twenty-two years, who had been much overworked in the struggle for a livelihood.

Dr. ARTHUR HALL showed a case of Acquired Syphilis in a little girl aged three years. The child had been nursing an infant suffering from congenital syphilis from whom the infection had been received three months before, probably on the mouth.

Dr. BURGESS showed specimens from a case of Xanthoma Multiplex.

The PRESIDENT related particulars of a case of Choledocho-duodenostomy. The patient, a female, aged forty-four years, had more or less continuous pain and jaundice for eighteen months. The gall-bladder was adherent to the stomach and empty. At the end of the common bile-duct a calculus of the size and shape of a filbert could be felt. It could not be crushed or pushed into the duodenum and was removed through a transverse wound in the second part of the duodenum. The patient rapidly lost the pain and jaundice and left the hospital three weeks after the operation quite well.

Dr. CLAPHAM read a paper on Incipient Insanity. After calling attention to the fact that the most curable stage of insanity was that coming under the notice of the general practitioner Dr. Clapham proceeded to give directions for the management of early manifestations and pointed out where mistakes were likely to be made. He insisted on the necessity of early treatment and lamented the delay in seeking advice on the part of the relatives, and distinguished cases needing asylum care and those which might be safely treated at home. In conclusion, he recommended the introduction of an incipient clause in the Lunacy Acts Amendment Bill on the lines of the measure already obtaining in Scotland.—The PRESIDENT, Mr. SNELL, Dr. PORTER, Dr. WADDY, and Dr. KEELING made remarks.

BOMBAY MEDICAL AND PHYSICAL SOCIETY.

Ovariotomy.—Laryngitis following an Inoculation with Plague Preventive Serum.—Plague Experiences at Hubli.

THE usual monthly meeting of this society was held in the University Library on Feb. 4th, Surgeon-Major-General G. BAINBRIDGE being in the chair.

Surgeon-Major W. H. BURKE read notes on three successful cases of Ovariotomy performed at the West Hospital, Rajkot.

Dr. THOMAS BLANEY read notes of a case of Laryngitis following an Inoculation with M. Haffkine's Plague Preventive Serum.—The case was discussed by the PRESIDENT, Surgeon-Colonel HAY, Dr. PEARSE, Dr. KALAPESI, and Surgeon-Major MONKS, none of whom seemed to think that there was any definite connexion between the inoculation and the throat attack.

Surgeon-Captain C. H. L. MEYER read a paper on Plague Experiences at Hubli, where an outbreak of the disease had occurred in a block of railway chawls occupied by employés of the Southern Mahratta Railway Company; the block consisted of single-storied buildings occupying an area of about four acres and housed 1200 people in 350 tenements. He arrived there on Oct. 27th, up to which time there had been 7 cases with 5 deaths. His inquiries led him to the conclusion that the first case appeared about Oct. 10th. Every effort was to be made to stop this outbreak, which was the only plague spot in the whole of the large Dharwar district with its millions of inhabitants. A police cordon was drawn round the block of chawls, two hut camps were rapidly erected, and all the people were transferred to them. After the transfer of the people a good many cases continued to appear in one of these camps among Punjabis and Madrasis. A third camp was therefore run up rapidly into which these people were moved and two additional camps were subsequently constructed. Any camp the people of which remained free from plague for twelve days was placed under "partial" cordon—that is to say, the men in that camp were allowed to go during the day to their work in the railway workshops, the women and children remaining in the camp. All the inhabitants of the camp under partial cordon were required to sleep in the camp and they were not allowed to remove any of their effects from it. The last case of plague occurred in the hut camps on Dec. 13th and they were all declared free from plague and uninfected on Jan. 10th. Up to the date on which the paper was written—viz., Jan. 30th—there were no further cases. As soon as the chawls were evacuated the tiles were thrown into pits and all the combustible materials in the roofs were thrown down into the houses, where, after the addition of some kerosine oil, they were burned, the heat produced being so great that it was impossible to enter the houses for some hours after the fire had died out. The next step was to thoroughly drench the whole interior surface of the houses with 1 in 1000 perchloride of mercury solution. All rubbish was burned and drains and gutters and latrines were thoroughly attended to. The belongings of the people in the hut camps were subjected to repeated disinfection, old bedding and rags were burned, and upwards of 500 new blankets were given in exchange. The number of deaths from plague which occurred among the 1200 people who lived in the infected chawls was 35—namely, 9 before removal, 15 in the chawls and huts during removal, and the remaining 11 in the huts after removal. These chawls were just outside the limits of Hubli town, which, in fact, consists of two towns, the old and the new, with a total population of about 50,000, and arrangements had to be made for the prompt discovery of any cases which might arise. An elaborate system of house-to-house visitation was therefore organised and police were stationed at all the burial and burning grounds (about 18 in number) for the purpose of preventing any body being disposed of without a certificate. In deaths from illness of uncertain nature the diagnosis with respect to plague was arrived at bacteriologically. Two of the 9 cases that occurred in the town were non-bubonic and it would have been impossible to have come to a certain decision about them without a microscope, for both the patients suffered only from a severe remittent type of fever. In cases of doubtful illness, if the microscope gave no assistance, as, for instance, when there was no bubo or sputum, for the blood is of little value for the discovery of the plague bacillus till late in the disease, the patient was taken into the observation ward of

the Plague Hospital Camp. Every house in the town in which a case occurred was completely unroofed and disinfected thoroughly. Nine cases of plague occurred in the town, the last of them having been on Jan. 9th, from which time up to Jan. 30th—the date of the paper being written—there was no recurrence.—The discussion on this paper was deferred till the next meeting.

Reviews and Notices of Books.

Twentieth Century Practice of Medicine. Edited by THOMAS L. STEDMAN, M.D. Vol. X., Diseases of the Nervous System. London: Sampson Low, Marston, and Co., Limited. 1897.

THIS tenth volume of the series deals with the diseases of the brain and commences with an able article by Dr. Joseph Collins which gives an account of the Anatomy, Morphology, and Functions of the Brain together with the diseases to which it is liable. Dr. Collins has after due consideration decided not to include cerebral hyperæmia and anæmia among the diseases of the brain, for while fully recognising that these conditions may exist as part of a more general disease he states that he has never yet been called upon or impelled to make the diagnosis of cerebral anæmia or of hyperæmia as individual clinical entities. Although their total exclusion may, perhaps, seem a strong measure we think it is, on the whole, justifiable, for although these conditions may occur sometimes, they have too often been assumed and used as a cloak for ignorance where the true nature of the disease was not obvious. The chapters on Cerebral Localisation are very full and contain abundant references to workers of all nationalities. In considering sensory localisation the author thinks that all pathological and psychological evidence tends to support the view that the cortex of the motor region is probably the principal seat of dermal and muscle representation and that the gyrus hippocampus and post-parietal lobes have no claim to this distinction, and we find that this view is later again supported by Dr. Sachs in his chapter on Tumours. In cases of cerebral abscess early operations are advised in every case in which the diagnosis can be made with reasonable certainty and in the absence of distinct localising symptoms the author thinks that, considering the frequency with which the temporo-sphenoidal and cerebellar lobes are affected, one or both of these localities should be explored. Probably this view is more advanced than that of most people, but in considering it the hopelessness of the case, if nothing is done, must be taken into account. The chapter on Multiple Sclerosis is good and stress is laid on the many variations of this disease. The subjects of Intracranial Hæmorrhage, Embolism, and Thrombosis are dealt with by Dr. Dana. Cerebral Hæmorrhage is not considered so fully as it might have been. With the exception of a brief allusion in regard to meningeal hæmorrhage we find no mention of conjugate deviation of the eyes and head, nor do we find any mention of "crossed paralyses," both of which may be important in localising the lesion. Dr. Sachs writes on Cerebral Tumours, and after discussing the various symptoms which they produce he draws special attention to the difficulties of diagnosis, especially between tumours and abscesses. With regard to treatment attention is very rightly drawn to the fact that too much reliance must not be placed on partial remission of symptoms which may occur during treatment, for remissions may occur with all kinds of tumours, and it has been shown over and over again that such temporary improvements are often fallacious and may lead to the postponement of surgical treatment until too late to be of any use. The author, after considering the advantages of medical and surgical treatment, discusses the question as to whether the results of surgical treatment have been such as to encourage the recommendation of surgical interference in many cases, and after a due consideration of the evidence he thinks that with care and attention far greater success may be expected in the future than has been met with in the past. Dr. Collins writes on Diseases of the Meninges and in alluding to the anatomy he divides the membranes into dura mater and pia mater; that which is usually called the arachnoid he considers to be the parietal layer of the pia mater and thus may be compared to the pleural and peritoneal membranes. In the diagnosis of the different forms of meningitis the importance of bacterial examinations, especially in cases of tuberculous origin, is emphasised. Epidemic cerebro-spinal meningitis is thought by Dr. Collins to be due to the diplococcus intra-cellularis of Weichselbaum rather than to the pneumococcus which many think to be the cause. Hysteria, Epilepsy, and the Spasmodic Neuroses are dealt with by Dr. Féré. The symptoms of hysteria are chiefly grouped under the heading of "Stigmata" which is the term applied to those which are more or less permanent paroxysmal phenomena and trophic disorders, and the nature and treatment of the disease are fully discussed. Migraine is treated under the head of "Partial Epilepsy." This disease is no doubt closely allied to epilepsy from a pathological point of view, but, considering its usual clinical course, we think it would be better to keep it under a separate heading. The symptoms, varieties and treatment of neurasthenia are fully discussed by Dr. Dana, who defines the disease as a chronic functional nervous disorder which is characterised by an excessive nervous weakness and nervous irritability, so that the patient is exhausted by slight causes and reacts morbidly to slight irritations.

Dr. Persling gives a good account of the disorders of speech and the methods which should be used in the examination of patients together with chapters on the Relations of Disorders of Speech to Insanity; the medico-legal relations of aphasia are also included. The volume concludes with an article on the Disorders of Sleep by Dr. Sanger Brown, in which will be found some interesting considerations concerning the nature of sleep.

This volume may be considered as a valuable addition to the library of those interested in neurology. It contains a copious amount of information gathered from a very large field of research, and the references which are given at the end of the different articles will prove most useful to those who wish to refer to the original articles.

Recollections of Thirty nine Years in the Army. By Sir CHARLES ALEXANDER GORDON, K.C.B., Surgeon-General. London: Swan Sonnenschein and Co. 1898. Price 12*s.*

IT may be said that in boyhood we live in the future, in adult and middle age in the present, and in old age life is mainly made up of our reminiscences of the past. The author of this volume has had a long and very varied experience; he has taken part in a number of notable and stirring scenes. His recollections of thirty-nine years in the army refer to, and in some measure embody, the events, political and military, of contemporary history in this Victorian age. Gwalior and the battle of Maharajpore, the Gold Coast of Africa, the Indian Mutiny, an expedition to China, the siege of Paris, Burmah and Madras, intercalated with brief notes of relatively short periods of service at home and observations during foreign travels *en route* to stations abroad, form a sufficiently wide geographical panorama. The impression left upon the reader is that, taken altogether, Sir C. A. Gordon's was a hard life, full of wear and tear, with the partings, sickness and domestic sorrows more or less incidental to the

lives of all. To pass through such a career successfully and to reach an age when he can look back upon and recount its story is the best guarantee that Sir C. A. Gordon was endowed with a strong and vigorous physique and sound constitution as well as a good deal of mental energy. To a healthy and enterprising young fellow with a dash and love of adventure, to see the world, to witness or take part in the dramatic and chequered scenes of life with all its hardships and successes, to make enduring friendships under circumstances of sufferings and perils shared in common, to gauge the real and not the merely apparent merits of the rank and file and their leaders where officers and men fare alike, to be enabled to appreciate the very present help of true surgical and medical knowledge in times of need and to have an opportunity, at any rate, of attaining rank and titular distinction—how much more do such chances offer to some young medical aspirants than the dreary waiting in the overcrowded and congested avenues of civil life?

Although this book is too long and deals too much with details and too little with personal reminiscences and reflections, it is a good, earnest, and interesting work and is calculated to raise its author's work and services and those of the members of the medical service to which he belongs, in the public estimation. To any thoughtful reader it must be abundantly apparent how great are the responsibilities and the exacting, laborious nature of the work which medical officers are called upon to perform and how many the sacrifices which they have to make in times of war and pestilence. The author of these "Recollections" joined the army in 1841, during the first Afghan war, when military reinforcements on a large scale were being sent out from England. At that time candidates for the medical service were nominated for their appointments and joined at Fort Pitt, Chatham, where they underwent a training but received no pay and wore no uniform, although they paid their mess subscriptions and were subject to martial law. In May, 1880, he retired from the service as Surgeon-General in receipt of a "Distinguished Military Service" pension and in the Jubilee *Gazette* of 1897 he was announced as receiving the honour of a K.C.B., a titular honour which was well merited and which we hope Sir C. A. Gordon may long live to enjoy. The author deals but little with military medical matters of a scientific kind: indeed, he does so designedly, and we think rightly, for it was as a hard-working medical officer and good administrator that he will be best remembered. It would be impossible within the limits of space at our command even to refer to all the varied incidents and experiences set forth in these "Recollections." At page 28 a remarkable instance is given of an officer's fortitude, endurance, and self-control during the campaign in Gwalior in pre-chloroform days. As an illustration of how badly the soldier fared in the past it may be mentioned that prior to 1845 his regulation daily meals were only two; breakfast at 8 A.M., dinner at 1 P.M. In 1845 a tea meal at 4 P.M. was allowed. Notwithstanding the great advance which has been made in the feeding of the soldiers there still remains, we think, much room for improvement. The State has always fed its sailors better than its soldiers, and now that we require to raise a large number of army recruits it may be well to remember that young and growing men require good feeding and that a well-fed man is generally a contented man. Sir C. A. Gordon gives some useful information regarding the Gold Coast and an interesting allusion to "L. E. L."—Letitia Elizabeth Landon—the poetess who died at Cape Coast Castle in 1838.

As an illustration of the occasional opportunities afforded to medical officers for natural history pursuits it may be incidentally mentioned that Sir C. A. Gordon while on the coast of Guinea contributed something to ornithology. Touching the author's account of the Indian Mutiny we need not say much because the subject has been already so often and so fully written about. That portion of his experiences connected with the Azimghur field force and General Sir Edward Lugard is interesting. The descriptions of the Expedition to China in 1860–61 and the Siege of Paris are also well worth reading. As indicative of Sir C. A. Gordon's good sense and shrewdness we may *en passant* call attention to the rules which he laid down for conducting official matters and correspondence (p. 294). We glean from our perusal of these "Recollections" that the author is not altogether favourable to the short service system; that he approved of the old regimental and staff medical systems; that he did not altogether meet with that amount of consideration and urbanity to be desired from his own departmental heads; that he strove during his service to improve military matters hygienically and generally as he went along; and that he was laborious, painstaking and conscientious. We hope Sir C. A. Gordon's book may have the success which it deserves.

Nasal Obstruction: the Diagnosis of the Various Conditions causing it, and their Treatment. By W. J. WALSHAM, M.B., C.M. Aberd., F.R.C.S. Eng., Senior Assistant Surgeon and Lecturer on Surgery, St. Bartholomew's Hospital. London: Baillière, Tindall, and Cox. 1898. Price 7*s.* 6*d.* nett.

THIS is a closely-written work of 250 pages with index. The first 155 pages are devoted to diagnosis of the conditions which produce nasal obstruction. The author proceeds on a new plan which he adopts in his surgical teaching, working from the "known to the unknown," instead of first describing the disease and then discussing how it may be diagnosed from similar affections. This method is so unusual that it perhaps strikes a reader with undue force that the style of the first part of the work is a little complicated, and the constant references from one paragraph to the other make the book a difficult one to read as a connected whole. We may quote Section 6 on page 29 as an instance of what we mean:

§ 8. "The abnormal swelling or prominence that has been discovered has not the well-known gelatinous, grayish appearance of the ordinary mucous polypus, but is evidently connected with the septum, with the inferior or middle turbinal body, or is quite as evidently, so far as can be thus seen, separate and distinct from each; begin at Section 8, *Evident Swellings of the Septum*, or at section 66, *Evident Swellings of the Turbinals*, or at section 115, *Swellings, apparently distinct from both the Septum and Turbinals.* Again, the swelling may involve the nasal mucous membrane generally, affecting both the septum and turbinals; then turn to section 147, *General Swellings of the Nasal Chamber.* If, however, it is not clear whether the swelling, or what looks like a swelling, is septal, turbinal, or distinct from each, begin below at section 7."

There can be no doubt that this method of teaching may be useful in its own way for the class-room or for examination papers, but whether it would prove of equal utility to the busy practitioner examining a case of nasal disease is more difficult to assert with truth. The methods of examination of the nose are elaborate and thorough and Mr. Walsham does not confine himself entirely to nasal obstruction, for he also deals with the difficult subject of diseases of the accessory sinuses, as the antrum and the ethmoidal and sphenoidal cells—conditions often associated with the various forms of obstructive disease. The diagnosis of these conditions is notoriously vague and uncertain, and such proceedings as transillumination of the ethmoidal cells or catheterisation of the sphenoidal sinuses or the infundibulum, are obviously not much depended upon by so good a surgeon and anatomist as Mr. Walsham, and we think it a pity that he

mentions methods which are apt to lead the investigator into the domains of speculative diagnosis.

In the pages devoted to treatment we read much that is instructive. The chapters are very full of information and most of, if not all, the ordinary methods in vogue receive full consideration. It is interesting to note that a surgeon of Mr. Walsham's experience has only comparatively seldom found it needful to remove the entire turbinated bones. In the sections devoted to naso-pharyngeal growths full information is given of the various operative procedures, and the author strongly disapproves of the "scraping method" for adenoids under gas, as being insufficient though commonly performed. With regard to the diagnosis and treatment of naso-pharyngeal conditions generally the author, we think, hardly lays enough stress on the importance of a thorough examination by the finger under anæsthetics. Much information of a reliable nature can thus be acquired regarding cases often of more than ordinary difficulty. Mr. Walsham is not a strong advocate of "flushing" the nose with antiseptic solutions, and he introduces a useful caution as to the inevitable dangers of the curette or forceps when used towards the roof of the nose in disease of the ethmoidal cells or sphenoidal sinuses. It is to be regretted that surgeons have hardly yet been able well to diagnose and treat these most difficult and dangerous conditions.

The author uses the term myxoma in reference to the ordinary nasal polypus. Some pathologists now assert that these growths are not myxomatous at all but composed of œdematous granulation tissue and dependent upon necrosis. This latter condition is one we should have liked to have seen discussed by a surgeon of Mr. Walsham's experience.

Pictures of instruments are introduced, but none of the anatomical points or pathological conditions mentioned in the text are illustrated. The value of the work as a clinical guide would be greatly enhanced by such additions if another edition be called for. The book contains a large amount of information and allowing for the peculiarity of style mentioned it may be read with great profit and advantage by all those especially interested in the surgery of the nose.

A Practical Guide to the Examination of the Eye, for Students and Junior Practitioners. By SIMEON SNELL, F.R.C.S. Edin., Ophthalmic Surgeon to the Royal Infirmary. With 88 Illustrations. Edinburgh and London: Young J. Pentland. 1898.

THE large experience of Mr. Snell at Sheffield has enabled him to place an unpretentious but very useful little book before the student. It contains in brief compass all that the student can be expected to master in the last year of his attendance at a medical school and will furnish him with sufficient information to enable him to know whether he can with fair prospect of success and with credit to himself undertake the treatment of a case or whether there are such dangers ahead as to render it advisable or prudent to obtain the opinion of an expert. In the introductory chapters the methods of examination in common use are described, as focal illumination, Placido's disc, of which good drawings are given representing its reflection from the normal and from a conical cornea; the mode of employment of the retractor, of Priestley Smith's keratometer, and of the electro-magnet which Mr. Snell has himself devised; and the measurement of the pupil and the reactions of the iris to light. Wernicke's hemianopic iris test is carefully given and is of great value in localising the seat of the lesion causing the hemianopia. It is that "if a beam of light cast on the blind half of the retina does not occasion contraction of the pupil the lesion is anterior to the corpora quadrigemina—i.e., at the chiasma or in the optic tract—but if reaction of the pupil ensues it is posterior to the corpora quadrigemina." The mode of examining the lens, vitreous, and orbit, and of determining the tension of the eye, complete the account of the external examination of the eye. As mydriatics Mr. Snell recommends the use of mydrin, which is a combination of ephedrin and homatropin, whilst another equally useful mydriatic is a combination of cocaine and homatropin. The two myotics in use are, as he notes, eserine and pilocarpine. The mode of employing the ophthalmoscope is the subject of another chapter, and is wisely, we think, given without any theoretical details and from a purely practical point of view. The methods of testing sight for form, light, and colour are discussed in full in another chapter and the last chapters are devoted to abnormalities of refraction, the field of vision, the movements of the eyeball and their anomalies, and simulated blindness, all of which are very clearly explained and capitally illustrated.

JOURNALS AND REVIEWS.

Journal of Applied Microscopy.—The first five articles of the February number of this new American monthly are as follows: Methods of Study of the Myxamœbæ and the Plasmodia of the Mycetozoa, by Howard Ayres; A Method of Preserving the Eye for Sectioning or for Demonstrating the Area of Acute Vision, by James Rollin Slonaker; Photography in the Biological Laboratory, by H. Munson; Some Methods of Determining the Positive or Negative Character of Mineral Plates in Conveying Polarised Light with the Petrographical Microscope, by M. E. Wadsworth; and Representative American Laboratories (No. I., Cornell University), by L. B. Elliott. The journal consists of 22 pages and is profusely illustrated; the price is 4*s.* per annum; the London agents are Messrs. Dawbarn and Ward, Limited, 6, Farringdon-avenue, E.C.

Écho du Bien.—Dr. A. Sandras contributes an interesting article on the late Dr. Péan, one of whose characteristics is said to have been that on country patients bringing him letters from their ordinary medical attendants he always seemed to be in agreement with the writer's opinions, a generous attitude which was meant to be, and no doubt often was, serviceable to his less celebrated colleagues. He was also a good friend to sufferers whose misfortunes were aggravated by scanty means and founded at his own cost the International Hospital in the Rue de la Santé for the benefit of such patients, from whatever country they might come. His wealthy patients, on the other hand, had to pay very high fees. He argued that for performing an operation which prolonged life he had a right to ask a remuneration equal to the patient's income for two or three years, and he adhered to this scale up to 1870 or 1871, after which time, being mortified by some of his patients neglecting to pay him, he insisted on receiving at least half his fee in advance. For coming to London to operate on a whitlow (panaris) he received, in accordance with a previous agreement, a fee of 20,000 fr. (£800).

The *Cornhill Magazine* for April has a delightful story in the pages of its "Private Diarist" to the effect that there was once a medical man in the country who attended in the usual generous fashion a country parson *gratis* until the time of his death. After this occurrence the disconsolate but thrifty widow wrote to the medical man asking him how much he would allow her for the empty medicine bottles. Mrs. Strachey has an article describing the training of housewives at the Manresa-road Polytechnic. What they are taught they are taught well, but we do not gather from the article that they are instructed in two arts in which the latter-day servant is notoriously deficient—first, how to make a bed—i.e., that it is not desirable to have two feet of blanket and sheet hanging down on one side and three inches on the other; and, secondly, the easily learned but apparently extinct art of how to set a candle.

New Inventions.

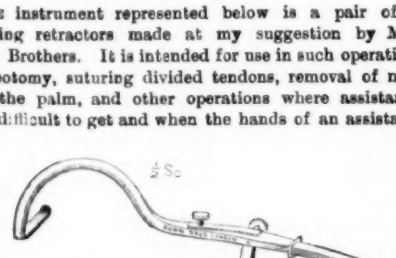
A NEW SNARE FOR NOSE, THROAT, AND EAR WORK.

FOR many operations upon the nose and throat a snare is needed which can be tightened up either rapidly or slowly. In many cases, as for the removal of certain forms of enlarged tonsils, inferior turbinate hypertrophies, fibrous growths, &c., it is of great importance to be able to draw the wire loop rapidly tight so as to grasp the growth firmly in position and then to cut through it slowly. At the same time the snare must be strong enough and must carry a wire sufficiently thick to cut through the growth however tough it may be. I believe the snare here illustrated will be found to fulfil the above requirements. Its mechanism will be easily understood from the accompanying illustration. The wire loop is tightened at first by drawing on the finger-loops, and then when a slow action or more force is required a screw action can be brought into play by releasing the lower finger-loop. The instrument is very simple and strong in all its parts, it is made entirely of metal, and can be taken to pieces for cleaning, &c. The wire loop can be quickly and easily attached and is very firmly fixed. The snare works noiselessly. To increase the general usefulness of the instrument I have had it made with three ends: a strong barrel for very tough growths; a very fine end for aural use, for nasal polypi, and for other soft growths; and a curved end for use in the larynx and post-nasal space. I am greatly indebted to an engineering friend, Mr. Bingham, for much help and for designing the method by which the screw is brought into action, and to Messrs. Mayer and Meltzer, who have made the instrument for me.

H. LAMBERT LACK, M.D. Lond., F.R.C.S. Eng.
Welbeck-street, W.

SELF-RETAINING RETRACTORS.

THE instrument represented below is a pair of self-retaining retractors made at my suggestion by Messrs. Down Brothers. It is intended for use in such operations as tracheotomy, suturing divided tendons, removal of needles from the palm, and other operations where assistance is often difficult to get and when the hands of an assistant are apt to be in the way. It is also hoped that its use will tend to obviate the sacrifice of valuable assistance which often occurs when skilled hands are devoted solely to the mechanical purpose of holding open a wound.



ARTHUR L. FLEMMING, M.R.C.S. Eng., L.R.C.P. Lond.
Freshford, near Bath.

A NEW FORM OF WEIGHING MACHINE.

THE illustration shows a new form of weighing machine made by Messrs. Arnold and Sons, London. The machine is so constructed that by a simple arrangement of a regulating nut any person can adjust the balance to the greatest nicety. All machines are liable through wear or otherwise to get out of order and this necessitates sending them to the maker for adjustment, but the manufacturers believe that much trouble and expense will be obviated by the simple nut arrangement introduced into the new machine. The machines can be supplied with or without the stand and measuring standard. They are simple in design, cheap, and reliable and will consequently be found useful adjuncts to the consulting room. They also have the advantage of occupying very little space and so can be put away under a chair or cupboard when not required.

ROYAL INSTITUTION.—The Dean of Canterbury, in the course of a lecture on the history of Canterbury Cathedral, delivered at the Royal Institution on March 25th, said that the life of the Canterbury monks in mediæval times was a very hard one. They were from 80 to 100 in number, they had to attend 7 services every day, and in winter time they suffered severely from cold, as they had no fires, and the cloisters were not glazed until a comparatively late period—namely, in the fifteenth century. They were also bled 5 times a year, after which operation they frequently had to go into the infirmary, and, in fact, a considerable proportion of them were constantly sick. The lecture was illustrated by views of the cathedral thrown on the screen and by a number of photographs on the platform which were inspected by the audience at the conclusion of the Dean's address. Among the photographs was a facsimile of a charter, a fine specimen of handwriting; it was granted by William the Conqueror and signed by him with his mark, which was somewhat in the shape of the symbol +, each of the lines being about half an inch in length. Queen Matilda also signed her mark beneath her husband's and many Norman bishops, together with one Saxon bishop (Wulfstan) and Hubert, the papal legate, wrote their names and titles in full. On the same evening, in the library of the institution, Mr. T. Charters White gave a demonstration of micro-crystals of hydroquinone and hippuric acid, a large number of which were shown under microscopes by polarised light, producing very fine effects.

THE LANCET.

LONDON: SATURDAY, APRIL 2, 1898.

WE congratulate the Army Medical Staff and the profession on the very successful issue of their controversy with the Government. The House of Commons on March 25th resumed the consideration of the Army Estimates and there was an interesting discussion on the vote for the medical establishment, the result of which was a declaration of the policy of the Government in regard to the Medical Staff and Service. It is notorious that for some time past the medical department of the army has been in a most unsatisfactory condition and that owing to its unpopularity it has been found impossible to fill the vacancies which occurred—indeed, the Director-General has quite recently applied to the medical authorities of one of the metropolitan hospitals for a certain number of young civil surgeons for the purpose of doing duty with the troops in the United Kingdom. There is no need now to refer at any length to the causes which have led up to this state of things. The feeling of discontent among the medical staff has not arisen from any matters in regard to their rates of pay or allowances, or in regard to any administrative reforms which were required, but mainly on a question of the medical officers' rank and status, on account of the medical service having been regarded as a department attached to the army rather than as an integral part of it and of the consequent want of that recognised army position which military rank alone, it is contended, can give, and which medical officers are justly entitled to hold. After the Crimean War medical officers possessed under the Warrant of 1858 what was called relative rank, but little by little this was interfered with and attenuated until in 1887 it was abolished altogether.

The late Mr. STANHOPE, when Secretary of State for War, went so far as to say that relative rank was a meaningless expression. But its abolition nevertheless took away the only army rank which medical officers had, and as a consequence very gravely affected their standing and position, because, as they rightly contended, they no longer held any defined, named, or comprehensive army rank like other officers. Combatant officers, it is alleged, even went so far as to affirm that medical officers had no rank and title. Attempts were made to set matters right by the introduction of compound titles, but these, apart from the cumbersome nature of such titles, have only proved futile. The medical service had in the meantime been reorganised and altogether reconstructed, and new and very enlarged duties and responsibilities had been imposed upon it. These necessarily entailed military command for their adequate fulfilment, especially on field service, and it was at last realised that the most pressing need of the medical service, without which the contentment and confidence of those within the service, or of the profession outside it, could not be restored, was the grant of army rank and military titles in a consolidated Army Medical Corps. Certain administrative reforms were also considered to be necessary. The Government has now yielded and made some most substantial concessions to the Army Medical Department, which will, we hope and believe, have the effect of vastly increasing its efficiency and of bringing back peace and contentment to all concerned. Mr. POWELL-WILLIAMS, in reply to Dr. FARQUHARSON, declared that the Secretary of State for War desired nothing more than that there should be a good understanding between the medical profession and the War Office. He was happy to be able to say that the Secretary of State for War was perfectly willing to give effect to the two proposals on which the greatest stress had been laid. As soon as the necessary arrangements could be made the medical service would be united and consolidated into what will be called a Medical Army Corps. As to rank and titles the War Office were ready to abolish the compound titles and to substitute for them up to the rank of Colonel those applicable to other branches of the service. There was a difficulty about the army title of Major-General, as that title implied a general command which was not asked for, but the Secretary of State for War had not yet given his decision in regard to this matter.

Mr. BRODRICK at a subsequent stage of the debate acknowledged the manner in which the Government proposals had been received, adding that one of the suggestions which had been made—namely, to attach medical officers to regiments—could not be carried out because it would entail the addition of at least sixty officers to the Medical Department. As regards a suggested alteration of the length of tenure of office by the Director-General, however, there seemed to him something to be said for it from the point of view of uniformity. Several members of the House of Commons took part in the discussion, congratulating the Government upon the concessions they had made. Sir W. PRIESTLEY, M.D., among others made an excellent speech, wisely urging that the smooth working of the new arrangement must depend in a great measure upon the wisdom and tact of commanding officers. It must of course depend upon HER MAJESTY'S will and pleasure whether the new medical corps is to be called "The Royal Medical Army Corps," which we trust, however, will be the case. In the interest of the army generally as well as of the medical officers we sincerely share the hope so generally expressed that the substantial concessions, which include, as we have said, the formation of the medical service into a corps and the granting of purely military titles, may be the beginning of a new, as well as of a long and happy, era for the officers of the medical staff of our army.

A CIRCULAR has been sent to us containing an appeal in favour of a movement to start a new departure in the way of hospitals—viz., to create a fund for building hospitals for the middle classes, who at moderate rates might find hospital accommodation in times of sickness. It is complained that "for such classes London with its

boundless charities has as yet made no provision, for between paying from five to ten guineas per week for private accommodation in an ordinary hospital or private home or having recourse to the common ward so repugnant to people of independent spirit there is at present practically no alternative." The appeal is only for initial expenses, for the promoters believe that once started the institution would be self-supporting. Subscriptions are desired; those who are ambitious to be founders are desired to send their names with an intimation of their probable subscription.

We are asked in the event of our approval of this new adventure in charity to give it our blessing and the publicity of our columns. We have every wish to keep up with the most modern philanthropy of the day. We believe not only in the development of doctrine but of charity; but we must confess that we do not at all see our way to the approval of this movement. Our first objection to it is that it will seriously compete with the existing hospitals for support and add to their financial embarrassment. How great this embarrassment is we need not remind our readers. In the aggregate the deficiency which the managers of the voluntary hospitals of London have to face is something like £70,000 a year. Thousands of the poor, whose homes have not the conveniencies necessary in health and are entirely destitute of accommodation for the sick, either fail to find admittance or are prematurely discharged to make way for others whose stay is in turn hurried and curtailed. It will be time enough to commence a new series of hospitals for a new class of the community when charity has overtaken its first duty—that of providing for the poor.

But we will go further and say that we do not see the need for the institution, or rather institutions, proposed, for, though only one such is spoken of at this stage of the movement, we know how apt such enterprises are to grow in the hands of their ambitious founders. Surely we have enough hospitals already. At any rate we have more than can be maintained in full efficiency and in most of them wards have to be closed for want of funds. We have, besides, the Metropolitan Asylums Board hospitals, into which all and sundry are admitted without question and without regulations by the Local Government Board such as were contemplated by Parliament. We admire the simplicity and the confidence of the promoters of this movement who foresee that all that will be necessary will be the starting of the new charity. Once provide the buildings and the patients will provide the rest! Will they? Hospital accommodation is found to be a very pauperising thing to classes which do not require it. And we would forewarn the promoters of this new scheme that if they take into their unnecessary care the building of hospitals for classes which can, on the whole, care for themselves, the said classes will soon expect them to make their charity complete and find the money for maintenance and medical attendance as well as for hospitals. We challenge anyone to deny that this is the tendency of hospital charity in all who are not essentially in need of it. We do not, of course, say that there are not classes, or rather cases, in the middle ranks of life which are with difficulty accommodated at home in certain cases of accident or disease; but they are comparatively few and they are rapidly being met by the creation of private nursing homes where, on reasonable terms, the needed accommodation is supplied. This fact, coupled with the demonstration of the essentially demoralising nature of hospital charity to those who are able with a little study and prudence to provide for themselves, is, to our minds, a convincing reason for deprecating the scheme which we are asked to approve.

BY common consent there is no part of the management of tuberculous phthisis which yields such satisfactory result as that included under the head of "climatic treatment." In many a case subjected to this influence in an early stage, the malady has been arrested in its progress, and not a few have been permanently "cured," so far as it is permissible to use this term in reference to any disease. Not that there is any specific action of air and sunshine upon the bacillus tuberculosis, although even this may not be impossible, but mainly because the conditions which obtain on sea or mountain are such as to enable the sufferer to enjoy a plenitude of pure air, which acts beneficially upon the pulmonary disease as well as serves to invigorate and enable the body to resist the disintegrating influence of the tuberculous virus. In truth, the climatic treatment of phthisis has been shown to be of such material advantage and is, moreover, so much in harmony with what is known of the true nature of the malady that any plan whereby its essential benefits can be extended deserves most cordial support. For the vast majority of the subjects of pulmonary tuberculosis—an affection which is responsible for a large proportion of the mortality in this country—are unable by force of circumstances to undergo that treatment which is known to yield the best results and which far surpasses the most careful medication and the action of all the "specifics" which have ever been introduced. In his interesting and thoughtful Croonian Lectures delivered thirteen years ago Dr. HERMANN WEBER—justly regarded as a leading authority upon climato-therapeutics—dwelt earnestly upon the need of affording to the phthisical patient facilities for the enjoyment of an open-air life. He advocated the provision in connexion with sanatoria of means to enable this to be secured, and he dispelled the notion that the climate of this country was necessarily an insuperable drawback to the realisation of some such plan. Undoubtedly our insular climate, its variability and its dampness, together with the lack of sunshine during the winter months, may seem to render England by no means a suitable place for open-air treatment. But as a matter of fact this treatment has been effectively carried out under conditions of climate and soil quite as unsuitable *a priori* as those met with here, for the experiences of the sanatoria of Goebersdorf and Falkenstein are already sufficiently extensive to prove that it is possible to secure the benefits of this treatment apart from the best general climatic conditions.

Dr. BURTON-FANNING has been narrating in our columns[1] the results of his trial of the application of this treatment at a small sanatorium at Cromer. His article bears

[1] THE LANCET, March 5th, 12th, and 26th, 1898.

abundant testimony to the efficacy of the treatment as well as to its practicability, for although the treatment was conducted on a limited scale the evidence adduced by the records of the cases treated is too strong to be ignored. The additional and valuable testimony given by Dr. POTT from his experiences at Bournemouth, which will be found on another page, affords further proof of this practicability. These communications come opportunely, for attention has been directed to this subject in our columns and elsewhere of late—notably by Dr. WALTERS,[2] whose project for establishing in this country a sanatorium on the lines of that at Falkenstein has met with much approval. It is so eminently a rational measure of treatment that the fact of its being capable of successful adoption in our fog-bound island ought to lead to very marked results. If the plan can be adopted on the east coast with security and success what is there to prevent its equally successful adoption on the moorlands and on the hillsides, as well as at the health resorts on the coast which have an established reputation in tuberculous disease. Dr. BURTON-FANNING'S and Dr. POTT'S experiments are almost crucial. At any rate they enable the profession to take a broader view of the subject than it has hitherto done, for if in England we do not possess an ideal climate and are subjected to too much humidity and too little sunshine, there are compensating advantages to the invalid in the abrogation of the necessity of banishment from home in order to reap the benefit of pure air—which is the essential factor in the treatment. If under suitable precautions it is thus possible for the phthisical subject to dwell in the open air and yet to remain in his motherland—and these experiences prove that it is—then we may reasonably hope that the benefits of this treatment will through the material assistance of the charitable be in time brought to the denizens of our crowded cities and factories who are, under present conditions, subjected to the worst possible influences so far as their prospects of recovery from phthisis are concerned.

AMONG the many important and difficult problems which of late years have come before the Council of the Royal College of Surgeons of England there have been few of more importance or of greater difficulty than that which was brought before them at their last meeting. A petition was presented, signed by some Fellows and Members of the College and emanating from the Corporate and Medical Reform Committee, which claimed that the right of electing a representative of the College on the General Medical Council belongs by the Medical Act of 1886 to the Members and Fellows and not to the Council of the College. We understand that no definite opinion was expressed by the Council and that the matter was postponed for further consideration.

This is, however, by no means the first time that the question has been raised—to whom belongs the right of choosing a representative of the College on the General Medical Council? and we believe that the last occasion was in March of last year when a requisition was presented to the Council, signed by thirty Members, for a meeting of Members in order to discuss certain subjects and amongst these was the question of the validity of the present mode of appointing a person to be a member of the General Medical Council. The Council of the College did not consider it necessary that a meeting should be held to discuss these subjects, and it therefore declined to accede to the request. Now, however, a further step has been taken. A petition has been presented to the Council, signed by nine Fellows and by thirty Members, claiming that the right of election belongs to the Members and Fellows. The petition evidently has been drawn up with extreme care and the terms in which it is couched are very temperate, though there is no lack of firmness in the manner in which the arguments are stated. The memorial commences by pointing out that the Act of 1886 constituting the General Medical Council (or, to give it its full name, the General Council of Medical Education and Registration of the United Kingdom) enacted, *inter alia*, that one member of the Council should be a "person" chosen by each of certain bodies and amongst the "bodies" enumerated was the Royal College of Surgeons of England. It is next contended that the "body" referred to must be the body-corporate of the College and no other and that the charter of the College of the year 1852 declares that the body-corporate of the College consists of the Members and Fellows, and therefore that the Council of the College, though the governing body and the executive body of the College, cannot be considered as in any way identical with the "body" of the Royal College of Surgeons of England. The petition consequently maintains that the appointment of a member of the General Medical Council made by the Council of the College is *ultra vires* and therefore illegal, and the petitioners call upon the Council forthwith to make all the necessary arrangements to enable the Members and Fellows of the College to elect a person to be a member of the General Medical Council in compliance with the provisions of the Act. We have given a bare summary of the arguments and statements of the petition, but it is sufficient to show that the petitioners have a reasonable pretext for the claims which they advance.

We will not venture to express any opinion as to the answer which the Council will give to the petitioners, or as to the tenability of the argument that the word "body" used in the Medical Acts is to be interpreted in the technical sense of "body-corporate." In the end, however, the matter will possibly come before a court of law, for if the Council should come to the conclusion that they have acted rightly in appointing a person to be a member of the General Medical Council, then the petitioners and other Fellows and Members of the College who share their opinions on this matter will naturally endeavour to obtain an authoritative answer to the question—to whom does the right of election belong. On the other hand, should the Council of the College be of opinion that they have indeed usurped a function to which they have no legal right, it is probable that they would hardly feel justified in relinquishing the powers which they have already exercised for forty years except under the mandate of a court of law.

[2] THE LANCET, Nov. 20th, 1897, p. 1310.

Annotations.

"Ne quid nimis."

SANITARY CONTROL AND SUPERVISION OF PUBLIC WATER-SUPPLIES.

THE wheels of our legislative machinery move slowly and over and over again opportunities of reform afforded by the "psychological moment" have been lost owing to delay. Of few things is this statement more true than of matters sanitary and it is devoutly to be hoped that the lessons taught us by Maidstone, King's Lynn, Camborne, and other places will not be allowed to pass away into history without the lives which have been lost thereby proving of some use to the community. Are we to forget the teachings of these outbreaks and wait until another series of similar calamities reawakens the public conscience? or are we to take the bull by the horns and determine that this neglect of one of the chief necessities of our existence shall cease? To leave matters to the tender mercies of the water companies or to the neglect of some of our sanitary authorities is, as has surely been sufficiently demonstrated, to continue to live in a fool's paradise, and what we need is strong and vigorous action on the part of the central health authority. This authority is, we have reason to believe, determined that reform shall be brought about and in all new water Bills promoted by private companies it is insisting on the insertion of a clause giving power to medical officers of health to enter at any reasonable time upon the premises of the water company and there to inspect their methods and, if necessary, their gathering grounds. So far, therefore, so good. But as those private companies which at the present day are furnishing water to the public will in all probability continue to do so for some time to come it is necessary that the powers of entry to which we have referred be made applicable to existing companies. It is for this reason that we welcome the action of the Stockport County Council, the energetic medical officer of health of which, Dr. Charles Porter, has done so much towards bringing about a change of the law in this direction. This Council is inviting sanitary authorities throughout the country whose districts are supplied with water from private companies, as well as societies connected with the welfare of the public health, to adopt and forward to Mr. Chaplin a resolution similar to this: "That inasmuch as outside the metropolis, and except in regard to wells and pumps, sanitary authorities possess no executive powers for the protection of public water-supplies in the hands of water companies, whereas the consumers of flesh, milk, and other foods are safeguarded by statute, we earnestly recommend that legislation be initiated whereby every sanitary authority supplied by a water company which is not also a sanitary authority be empowered to authorise any duly appointed official to enter, inspect, inquire, and take samples, at any part of any source, or works of water-supply, or water purification, at any time by day or night, and whereby also such water company be required to afford all reasonable facilities and information for such inspection, inquiry, or sampling." This resolution is, it appears to us, couched in very reasonable terms and is one which might well be acted upon by the Government after Easter. Here is a proposal which is above all things eminently moderate and practicable and one which cannot be said to interfere unduly with vested interests or which need give rise to prolonged or acrimonious discussion in the House of Commons. We presume the words "any duly appointed official" are intended of necessity to embrace the medical officer of health, as this officer should, we consider, always have access to the works. And this brings us to a point of importance in relation to water-supplies which are the property of the sanitary authority. In not a few instances there is an element of friction introduced into the proper supervision of the water-supply by the fact that the borough engineer or surveyor, or whatever may be the correct title of the officer in question, claims, as it were, an exclusive right in reference to matters connected with this all-important aspect of local administration and he resents the presence of the medical officer of health on the gathering grounds or at the works. Such a position as this is fatal to the proper safeguarding of our water-supplies and it appears to us that a sanitary authority should always insist upon the medical officer of health systematically inspecting the works. One other point in conclusion. Much may be done by sanitary authorities throughout the country, but we should like to see an inspection of all doubtful supplies undertaken by the Local Government Board and the results of such inspections made known not only to the sanitary authority in question but also to the public.

INJURIES OF THE URETER.

MR. HENRY MORRIS, the Hunterian Lecturer at the Royal College of Surgeons of England for this year, has recently published in the *Edinburgh Medical Journal* an exhaustive paper on Injuries of the Ureter. This paper has a close connexion with the Hunterian Lectures (abstracts of which we shall shortly publish) their general title being the Origin and Progress of Renal Surgery. He confines his remarks to subparietal injuries, excluding penetrating wounds of which there is only one undoubted case on record, and obstetrical injuries which come for consideration under ureteral fistulæ. Twenty-three cases are to be found in surgical literature published as injuries of the ureter, but of these only eleven can be considered as injuries of the ureter proper, the remaining being cases of rupture of the renal pelvis or of the renal substance opening calyces and giving rise to extravasation of urine. These eleven cases fall into three classes: verified cases of rupture of the ureter (two cases), with extraperitoneal extravasation and tumour in one and with intraperitoneal extravasation but no tumour in the other; probable rupture of the ureter with extravasation (four cases); and contracted ureter with hydronephrosis, &c., possibly due to ureteral injury (five cases). The causes comprise forcible compression of the body between two hard objects, kicks from horses, the passage of a wheel over the trunk, falling down stairs, the bursting of a shell, and a violent jerk in jumping from a horse. When the ureter is torn through and the peritoneum remains intact (as it usually does) a tumour will sooner or later be formed by the accumulation of urine in the retro-peritoneal tissue, but if the ureter be not torn through but contused or otherwise injured a tumour will in course of time be formed consisting of one or other of the varieties of obstructed kidney—namely, renal abscess, pyonephrosis, hydronephrosis, or polycystic kidney. If the ureter be at once completely obstructed by blood-clot and remain so atrophy of the kidney will probably result. In two out of the eleven cases a communication was formed between the cavity containing urine and the large bowel. The symptoms of rupture of the ureter are not characteristic; for a time there may be only pain and tenderness and no indication in the urine of any injury. Hæmaturia may be entirely absent or it may be slight and transient. If the ureter alone be ruptured the hæmaturia is not likely to be considerable or prolonged, but slight hæmaturia or even no hæmaturia may occur in renal as well as in ureteral injuries. If one or both kidneys are seriously injured there may be incomplete or complete suppression of urine. Pain and

tenderness at the part injured is a common immediate symptom. The pain may be referred to the loin, the front of the abdomen, the umbilicus, or to the middle of Poupart's ligament. This pain may pass off in a day or two and the patient may remain quite free till fresh pain is caused by the development of a tumour. Transient collapse and vomiting may occur. In some of the cases there was ecchymosis over the loin, the abdomen, and the inguinal region. If the patient survives a swelling will form due to a retro-peritoneal collection of urine or urine and blood or to one or other of the changes which supervene in the kidney. If of the former variety the swelling forms early, in a few days or weeks, but if of the latter only in many weeks, months, or even years. The tumour is usually well defined, palpable from the loin and front of the abdomen, and may extend from the thorax into the false pelvis. As soon as the fluid in the retro-peritoneal space decomposes inflammation, suppuration, or sloughing occurs with corresponding symptoms—viz., increased pain, redness of the skin of the loin, œdema of the abdominal wall, pyrexia, furred tongue, anorexia, and constipation or diarrhœa. Fluid drawn from the tumour before the occurrence of suppuration has the characters more or less pronounced of urine, but it is generally alkaline, of low specific gravity (1008 to 1010), and contains very little urea and probably a little albumin and blood; when septic changes have occurred it contains pus. On the other hand, when the tumour is formed by the kidney itself and a long time after the accident the case will probably be considered as one of the forms of renal enlargement and not at all in relation to injury of the ureter. The ideal treatment for rupture is immediate suture or anastomosis of the ureter, but this is usually impossible as the diagnosis cannot be made until some time after the injury. Puncture of the retro-peritoneal cyst has been adopted, but with uncertain result. A free incision in the ilio-costal space will secure the evacuation of the extravasated fluid. If the ureter is not completely torn across the experience afforded by operations for calculi afford grounds for the expectation of the cicatrisation of the wound and the re-establishment of the ureteral channel. The incision may be prolonged towards Poupart's ligament, passing a finger's breadth in front of the anterior superior iliac spine. It will no doubt be difficult to trace the ureter, but the search may be facilitated by remembering that it is carried forwards with the detached peritoneum, to which it is attached about half-an-inch or more external to where the peritoneum is tied down to the spinal column. But in none of the recorded cases has the site of the injury been ascertained and suture accomplished. If the rupture cannot be found the incision in the loin and drainage will give the most favourable opportunity for repair; there is abundant evidence that surgical wounds of the kidney, pelvis, and ureter will heal without sutures. If the ureter be completely torn asunder its ends should be anastomosed; if this cannot be done a permanent fistula in the loin is to be expected, which will save the integrity of the kidney. When suppuration has occurred its consequences may necessitate nephrectomy.

THE APPROACHING MEETING OF THE GENERAL MEDICAL COUNCIL.

THE meeting of the General Medical Council on Tuesday next will be in every way important. We do not remember any similar meeting in the history of the Council, called for such special reasons and in such a special way. Mr. Balfour's weekly encroachments on the time of private members make it possible that in this year, as in so many others, the forms of the House will lend themselves to the purposes of those who oppose all legislation on the subject of midwives' registration. But this possibility can in no way affect the duty of the General Medical Council, which has been asked, and asked again, "to favour the Lord President with any observations they may desire to offer thereon at the earliest possible moment." These are not words of form and they impose on every member a strong obligation to bring his best judgment to bear on the question with a view to its being settled. We learn with regret that Sir Richard Thorne Thorne has been disabled by influenza from being present at the last two meetings of the committee. It is to be hoped that the report will be in such a form as to raise the essential points of the subject in such a way as to facilitate their consideration by the Council. The time cannot be long distant when this question must be disposed of one way or another as far as the General Medical Council is concerned. On the score of expense to the Council it is no light matter. The approaching meeting is a striking proof of this, the members being called together for the special purpose of considering the Bill. It is true that the election of a President is another special business for the discharge of which the Council is summoned. But urgent and important as this is it could have stood over till the ordinary time of the May meeting of the Council. Much public and professional interest in the election is displayed. The fact is that the Council is becoming more and more important as a connecting link between the State and the public where medical matters are concerned and with the progress of civilisation the relations of the profession are constantly being multiplied and its importance increased.

THE RELATION OF THE CHURCH TO SANITATION AND TO VACCINATION.

AT a rural-decanal meeting held recently at the town-hall, Ipswich, Mr. A. F. Vulliamy, the clerk to the Ipswich Board of Guardians, proposed, "That inasmuch as a low state of physical health is a fruitful cause of drunkenness, and overcrowding of immorality, it is the duty of the Church to endeavour to secure that there should be in every parish a plentiful supply of pure water, adequate drainage, and sanitary dwellings." Although this proposal is perhaps somewhat startling in character we cannot but regard it in a favourable light. To enlist such a powerful organisation as the Church, using this term in its broadest sense, into the service of public health, is to add to it no mean force. It is not within our province to discuss what is the duty of the Church, but on the grounds of natural law we are compelled to agree with Mr. Vulliamy that sanitation and morality are, in no small degree at least, convertible terms, and this being so it is surely in the interests of the clergy to promote whatever conduces to the spiritual well-being of the people under their care. Mr. Vulliamy's resolution would find its chief application in our rural districts, where water-supplies are notoriously defective and deficient, where drainage is often absent and the cottages are unhealthy and overcrowded. The influence of the clergy on the parish councils and the district councils should be very considerable, and if they devoted more of their time to public affairs the effects of their efforts would soon become apparent. Why, too, should they not preach from their pulpits the gospel of cleanliness? To preach morality to households where the rooms are overcrowded with both sexes is a thankless task, and how much better would it be to strike at the root of the evil and to remove the incentives to moral obliquity. So also with regard to vaccination, the clergy might do excellent service in teaching the people the essential truths as to its protective value. The clergy are a body of intelligent men, capable in the main of comprehending the value of evidence, and they could utilise some of their spare energies

to good purpose by controverting the teachings of anti-vaccinationists. In the Jewish Church the Chief Rabbi has extended but little sympathy to those of his race who consider themselves bound to detest "the inoculation mania and all its works" and who think nothing "is more opposed to the spirit of ancient Judaism than the insertion of an animal disease in the human body." The Chief Rabbi has, indeed, replied to certain correspondents "that the most competent medical authorities were agreed as to vaccination being a prophylactic against small-pox and that its use was in perfect consonance with the letter and spirit of Judaism," and referring to the remarks of a certain Mr. J. H. Levy he appropriately observes that "Mr. Levy is not an authority on medical science; his opinions on the subject have therefore no value." As an illustration of what may be the power of a clergyman in educating the public mind it may be narrated that on one occasion a Local Government Board Inspector who was despatched to assist in suppressing an outbreak of small-pox was asked by the vicar of the parish in what manner he (the vicar) could aid matters. The reply was, "Preach vaccination and revaccination." On the next Sunday the vicar obeyed his directions, and the result was that his parishioners came in shoals to the vaccination station to be protected against small-pox.

IMMUNISATION AGAINST DIPHTHERIA.

ALTHOUGH Behring's antitoxin is now used throughout the world as the most powerful remedy against diphtheria it is comparatively seldom given for immunising purposes. In the children's department of the Charité Hospital in Berlin, however, where formerly patients sometimes took the disease owing to the want of efficient isolation, the systematic employment of immunising injections was introduced three years ago. Since January, 1896, the patients have even received injections every three weeks, the effect being that since that time no child treated there for any other disease has contracted diphtheria. This fact is the more remarkable because Dr. Slawyk has stated in the *Deutsche Medicinische Wochenschrift* that diphtheria bacilli were found to be present in the mouths of 24 out of 100 children who were examined during five months. In order to ascertain whether the immunity was due to the injections or to some other influence the injections were stopped in October, 1897. Shortly afterwards—namely, in the first days of November—a patient, three and a half years of age, who had been admitted into the hospital for Bright's disease on Oct. 20th, suddenly became feverish, but a diagnosis could not be made until Nov. 10th, when well-marked croup was developed. As there were then numerous diphtheria bacilli in the sputum an injection of Behring's antitoxin was given, but the child died on the following day. One day afterwards two other children in the same ward, whose beds had been near that of the child above mentioned, were seized with typical diphtheria of the pharynx, but were immediately treated with antitoxin and recovered in a few days. Another case was that of a convalescent from measles on whom an immunising injection had been performed on Oct. 13th. The patient ought to have been discharged from the hospital on Nov. 3rd, but the mother did not come to fetch the child. On Nov. 6th a well-marked attack of croup developed, diphtheria bacilli were found in the sputum, and an injection of 2000 units of antitoxin was given, but the child nevertheless died on Nov. 14th from broncho-pneumonia. It could not be ascertained how the first child had caught the disease; the second and third were apparently infected by the first. The fourth child was infected by a visitor who had transgressed the regulations by previously entering the diphtheria ward. The immunity of this case did not last longer than three weeks—a fact in accordance with Behring's statements and the observations of others. The failure of the antitoxin was owing in the last case to the great debility of the little patient and in the first one to the fact that the diagnosis was made somewhat too late. Since that time immunising injections have again been given to every child in the hospital every three weeks, with the result that no subsequent infection has occurred. Among 500 children 874 injections were performed, only those who were in a hopeless state being excepted. The only complications observed were eruptions resembling urticaria.

THE AFTER-CARE ASSOCIATION.

THE After-care Association, which does such good wor in assisting poor persons who have been discharged recovered from asylums for the nsane, has just issued its report for 1897. During the period of twelve months covered by this report 147 cases were brought before the council, as compared with 135 cases during the same period in 1886. Of these 147 cases 105 were females and 42 males. Assistance was given by boarding out in cottages in the country, by grants of money and clothing, by the finding of occupation, or by other ways as the council have thought best. No work of charity is, perhaps, more needed than that of this association, which is the only one of its kind in the country, yet financial support is urgently required in order that its excellent work may be carried on and extended. The income for the year 1897 was only £561 7*s.* 9*d.* and of this small sum £6 6*s.* had to be expended in auditing the books, a fee which has hitherto been paid by a friend of the association. A donation of £50 has been promised if the sum of £1000 can be raised during the present year and it is to be sincerely hoped that this offer may not be lost through lack of the support asked for. Communications should be addressed to the Secretary, Church House, Dean's-yard, Westminster.

THE MANCHESTER SEWAGE PROBLEM.

ON the rejection of the culvert scheme of the Manchester Corporation a sub-committee of the Rivers Committee was appointed in November last to inquire once more as to the best method of sewage purification. Various towns have been visited and many systems of sewage disposal inspected, and it is understood that their report—which was finally approved at a meeting held on March 9th—will be in effect a recommendation to the City Council to adopt land filtration on what is known as the biological system. There are various estimates of the cost, but they are generally much below that of the culvert scheme. If the sewage cannot be utilised on land and has to be turned into streams, as appears inevitable with the "water-carriage" method, the "biological system" seems to be making good its claim as the simplest and most economical as well as the most effective method of dealing with sewage. It is possible that the last improvements have not yet made their appearance, but in view of what has already been done at Barking in Essex, Sutton in Surrey, and elsewhere, under the guidance of Mr. Dibdin, and at Exeter, where the chief modification of the method is the addition by Mr. Cameron of the septic tank, it may be hoped that by-and-by Manchester will find its "sewage question" less of a puzzle and disgrace. At Exeter, according to the testimony of an eye-witness who recently inspected the sewage works, the effluent turned into the river is of a high degree of purity and insusceptible of secondary putrefaction. One of the most remarkable facts concerning this method is that 'sludge" is almost entirely done away with. Sanitarians will wait with interest the report of the Royal Commission. An instructive illustration of what is done at present was afforded by the evidence given at a recent inquest held in Manchester as to the death of a man employed by a calico

printing company whose duty was to "superintend a pump that pumped dirty water out of a settling tank or culvert." A manhole led to the lower part of the culvert (which is thirty yards long) into which it was part of this man's duty to go and "stir up the mud." The poor fellow went into the culvert at an unusual time it seems, and while there a "kier" holding 300 gallons of boiling water containing caustic soda was "blown out" through a three-inch pipe into the culvert. As he did not appear at breakfast a search was made and the body, scalded all over, was found in the water. It was a horrible death—drowned and scalded; but the verdict was that it was accidental, and the man ought not, it was stated, to have gone into the culvert when he did. This mixture of mud and foul water is turned direct into the river as the pump will not "at present" pump it into the settling tanks. When the foreman was asked by the coroner how long they were going to pump this dirty water into the river he answered: "As long as we are allowed to do so, I suppose." Presumably this is an ordinary example of the way in which the law is evaded.

LODGINGS FOR THE SOCIAL OUTCAST.

WE have to congratulate the *Morning Post* and also the Church Army on the acquirement of the premises, 59, Millbank-street, S.W., for the "proposed construction and arrangement of the receiving home for those waifs and strays, the social derelicts, who may be brought in nightly from the Embankment." The house will also be used as a lodging-home for such waifs and strays as have been found worthy of charitable assistance. The occupants, for whom work may have been found through the agency of the Church Army, will pay for lodging at the rate of sixpence a night. So little real help has been extended to the poor social outcast that any scheme which will tend to lift him from the position to which he has fallen is to be encouraged, and though we have no details as to the precise construction of the home the name of a leading daily newspaper would seem to be a guarantee that it will be carried out on right lines. By right lines we mean looking after the moral and corporeal interests of those for whom the home is founded as distinct from the making of a profit out of the undertaking in order to carry on so-called spiritual work elsewhere.

JOINT DISEASE IN HÆMOPHILIA.

IN the *Bristol Medico-Chirurgical Journal* of January last Dr. J. E. Shaw has published the following exceptional case of joint disease in hæmophilia. A thin, cadaverous-looking man, aged thirty years, was admitted to hospital complaining of hæmaturia. Two of his brothers had died in infancy from hæmorrhage. When seventeen months old the patient was an inmate of St. Thomas's Hospital with swelling of the left knee which, he said, had burst. Some months later the right knee was affected. At five years of age the left knee was again attacked and a third time at the age of seven years. At eleven years of age he was struck with a stone on the right knee and the joint became much swollen; it was aspirated and blood was withdrawn. Shortly after this there was hæmatemesis and later epistaxis occurred. When seventeen years old he suffered from uncontrollable hæmorrhage from a wound of the thumb and after this from bleeding from the gums. At twenty years of age he had small-pox which was not at all hæmorrhagic. On admission the blood contained 55 per cent. of hæmoglobin and 4,000,000 red corpuscles to the cubic centimetre. There were bony enlargements of the elbows and knees, but there was no fluid in the joints. Movements were limited and caused a grating sound. In the knees marked "lipping" could be felt. Skiagrams of the joints showed a condition similar to rheumatoid arthritis. In addition to the permanent enlargement he suffered from frequent attacks of effusion around, and perhaps slightly into, the affected joints. These attacks were preceded by prodromata. Several hours before the swelling began there was a feeling of "pins and needles" in the fingers or toes of the limb and there was a feeling of heat in the joint. The condition usually passed off in two days. The patient had several attacks of severe left renal colic requiring the administration of morphia, followed by the passage of clots in the urine. Joint lesions in hæmophilia are but imperfectly described even in recent literature and have been sometimes mistaken for other diseases. This patient was supposed at St. Thomas's Hospital to have "white swelling" of the knee and the true nature of the disease was recognised many years later only on aspirating the joints. In the *Medical Record*, 1896, J. E. Summers, jun., reported a case in which an enlarged ankylosed knee occurring in a boy, aged ten years, was diagnosed as "quiescent tuberculous arthritis." The joint was resected and the patient died in twenty-four hours from uncontrollable hæmorrhage, the operator discovering too late that he was treating a hæmophiliac. It is noteworthy that chloride of calcium had no effect on the hæmorrhage in Dr. Shaw's case. In contrast to rheumatoid arthritis the hands and feet were not affected.

THE EPIDEMIOLOGICAL SOCIETY AND REVACCINATION.

THE Epidemiological Society has, it appears, taken up a very definite attitude with respect to the necessity for revaccination and they have recently forwarded to the President of the Local Government Board a resolution expressing their views upon this subject. The resolution runs as follows: "That this society, while noting with satisfaction the pronouncement of the Royal Commission as to the value of primary vaccination and the necessity for maintaining it, regrets that, although the report also brings forward conclusive evidence as to the value of revaccination, the Commissioners have not seen their way to recommend legislation which would place it on the same basis as primary vaccination." The position of the Epidemiological Society is undoubtedly a strong one and one concerning which the profession as a whole should speak with no uncertain voice; a want of unanimity is fatal. The political exigencies of the situation may preclude the adoption of revaccination by the Legislature, but it is the duty of the medical profession to tell the Legislature the proper course to pursue if they wish to control small-pox. Whether the public takes the prescription or not is an altogether separate issue; under any circumstances we are bound to prescribe properly. If the profession be asked what is the treatment for acute rheumatism they must prescribe not one-grain doses of salicylate of soda, but such doses as have been proved by experience to be efficacious. Similarly when we are called upon to prescribe for small-pox prevention we order, not primary vaccination alone, which has been sufficiently demonstrated to be insufficient for live-long protection, but primary vaccination coupled with revaccination. It is to be hoped that when the Vaccination Bill now before the House of Commons comes on for second reading there will be found among the medical representatives in that House those who will stand up boldly and tell the House what course it must adopt if it wishes to control small-pox. Whatever happens the prescription of revaccination will stand the test of time, and if the public are not yet educated up to this point the profession will at least be able to reply when the future has taught the people wisdom: "We prescribed this for you in 1898." The educated classes have long since adopted the proper precautions, and they in their turn should tell their weaker brethren what course they should pursue. How much

longer in questions of prevention of disease is the tail to wag the dog? We hear, too, that the Epidemiological Society has had reprinted for circulation among Members of Parliament the admirable reply to the dissentient statement in the report of the Royal Commission on Vaccination which was read before the Society recently by Dr. J. C. McVail. We trust that those members of both Houses of Parliament who take an intelligent interest in the vaccination question will not miss the opportunity thus afforded them by the Epidemiological Society—with whose name, be it noted, the history of vaccination has always been honourably associated—of ascertaining what are the facts of the case.

ELECTION OF PRESIDENT OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

THE tenure of office of the President of the Royal College of Physicians of London is technically for a year, the by-laws ordaining that on the "day following Palm Sunday" in each year the Fellows shall assemble to elect from their number without previous nomination or proposal one who shall preside over the College for the ensuing twelve months. It is very long since the College thought fit to change its President with the frequency that is legally permitted to it and there can be no doubt that the present much-esteemed holder of the office will next Monday be again chosen to fill the chair which he has occupied with such dignity and impartiality.

CERTIFICATION OF DEATH.

IT has frequently been our duty to criticise irregularities and shortcomings in the matter of death certification. Recently our attention has been drawn to a point of considerable importance as regards the interpretation to be put on Section 20 of 37 & 38 Vict. cap. 88, which says: "In case of the death of any person who has been attended during his last illness by a registered medical practitioner that practitioner shall sign and give to some person required by this Act to give information concerning the death a certificate stating to the best of his knowledge and belief the cause of death." The question may be studied from its legal and ethical aspects. It seems to us that the law is quite explicit; not only granting as a privilege but demanding as a duty the giving of a certificate of death by a duly qualified medical man who has attended on a person in his last illness. This, of course, is subject to the condition that such medical man has no reason to doubt that death arose from natural causes. The words "to the best of his knowledge and belief" leave considerable latitude to the medical attendant. It is not necessary that he should be fully conversant with all the symptoms and morbid signs incidental to the fatal disease, or even that from personal examination he has proved the fact of death itself. That being so it is clear that any attendance, however short, is sufficient to qualify for certification. Obviously it allows a loophole for abuse, but on the other hand it would be impossible to define the nature and duration of medical attendance necessary to qualify for certification. Furthermore, we are of opinion that the legislature evinced a creditable acknowledgment of the honour and probity of our profession in leaving to its members much discretionary power as a fringe to an incumbent duty. But there is beyond the legal reading of the statute an unwritten code of professional etiquette and good feeling. Take, for example, such a case as the following: A has been the regular medical attendent of a patient and has continued his attendance to within a very short period of the death. For some reason or other B is called in a few hours before the decease. Now whilst B has a perfect legal right to certify—and it must be granted he has adequate medical knowledge of the case to reasonably entitle him to do so—we hold that unless there were very strong grounds for abstention he ought to consult A before giving a certificate. It would leave him exonerated if any mistake arose, besides showing him possessed of that kindly feeling which one professional man should have for another.

THE DIMINISHED RUSH INTO THE MEDICAL PROFESSION.

IS it safe to assume that at length the somewhat wild rush by young men into the medical profession is to be moderated? We ourselves do not mean to be rash in making this assumption. Meantime we take the facts for what they are worth, as recorded in the Medical Students' Register just issued. In the year 1897 the medical students registered were in England 828, in Scotland 504, and in Ireland 210. There was a decrease as compared with 1896 of 199. The numbers in 1896 again were less than those of 1895 by 97. We must go back 21 years, to 1876, for so low a registration number as that recorded last year—namely, 1479. The numbers have been several times over 2000, as in 1879, 1880, 1881, 1889 and in 1891, when they reached the appalling number of 2405. Since 1865, the commencement of students' registration, 50·15 per cent. of the total number of registrations have been in England, 30·5 in Scotland, and 19·5 in Ireland. The diminution last year was proportionately greater in Ireland than in Scotland or in England. We cannot affect to regret the signs of arrest in this rush into the profession. Medicine is not improved by crowds competing for a livelihood.

THE PETROLEUM INQUIRY.

THE Select Committee of the House of Commons which was appointed to inquire into, and report upon, the sufficiency of the law relating to the keeping, selling, using, and conveying, of petroleum and other inflammable liquids, and the precautions to be adopted for the prevention of accidents with petroleum lamps, has resumed its sittings under the presidency of Mr. Jesse Collings in the place of the late Mr. Mundella. The inquiry has now lasted for nearly four years, but there is distinct indication of the proceedings terminating before very long and of a report being issued. At the last meeting the committee decided to hear the evidence of one witness only, and that a very important witness, in the person of Sir Vivian Majendie, the chief inspector of explosives to the Home Office. Sir Vivian Majendie had been requested to draw up a report, the conclusions of which should be based upon the whole of the evidence taken. His deliberate conclusion is "that the laying down of a statutory description of petroleum might have dangerous exceptions and inconvenient consequences. Whatever regulations might be made with regard to sale, it was obvious that they would be useless without the inquisitorial right of entry of a private dwelling. The evidence was contradictory as to necessity or advisability and even as to the probable limit and efficiency of the standard." He advised "the prohibition of lamps of dangerous construction, preferring negative to positive action." Great elasticity should be allowed, he added, in order to keep pace with the developments of trade. It is now more than two years since THE LANCET Analytical and Sanitary Commission undertook a practical inquiry bearing upon dangerous paraffin lamps, and in the Commissioners' report, which appeared in THE LANCET of Jan. 4th, 1896, occurs the following sentence: "We would, therefore, most strongly appeal for legislation, with a view of placing some control over the construction of lamps sold

in this country, and we should like to see an official lamp department created at once, the function of which should be to stamp lamps with the Government approval of construction before they are offered for sale." It is stated that the Committee has decided to hear no further witnesses.

THE CONVEYANCE OF ENTERIC FEVER BY OYSTERS.

IN a recent annotation in our columns we drew attention to the fact that the Brightlingsea District Council were smarting under allegations against the fair fame of the oysters from Brightlingsea Creek. At that time Dr. G. S. Buchanan was investigating on behalf of the Local Government Board a series of cases of enteric fever which might be found to have some connexion with Brightlingsea oysters, and we stated that if it were found necessary to raise a serious question as to the agency of these oysters in disseminating enteric fever such allegation should be supported by a sufficient chain of evidence. This chain of evidence has now been completed and we are indebted to Dr. Buchanan for its completion. His report to his Board deals in a thoroughly scientific spirit with the occurrence of certain cases of enteric fever in six sanitary districts of Essex and Suffolk and upon oysters in relation thereto. We shall deal fully with this interesting report in our next issue. On Wednesday last a strong deputation, including Mr. Gerald Loder, M.P., Sir William Priestley, M.D., M.P., Dr. Forman, L.C.C., and Sir. J. Blaker (the Mayor of Brighton), waited on Mr. Chaplin to urge upon the President of the Local Government Board the importance of some measure being introduced to prevent the contamination of shell-fish by sewage. Mr. Chaplin's reply was decidedly encouraging, as it contained more than a suggestion of a promise that "with regard to oysters at no distant date he would take action which would be satisfactory to the deputation."

VACCINATION AND ERYSIPELAS.

THE inquiry which has recently taken place before the coroner, Mr. A. Braxton Hicks, at Battersea terminated on March 27th, when the jury, after some deliberation, returned a lengthy verdict. The inquiry had been a thorough one and the coroner summed up the evidence in an impartial and sensible manner. In brief, the verdict amounted to a censure of the public vaccinator for adopting a system of vaccination whereby sufficient care was not exercised in the selection of the vaccinifer or in ensuring cleanliness in the operation. At the same time, by a rider the jury intimated that the conditions obtaining in public vaccination stations were not such as to conduce to adequate care and attention to details, and they urged on the Government to speedily pass into law their proposals for the amendment of the practice. Whilst finding that the deaths of the three children were due to erysipelas induced by vaccination the jury expressed the opinion that "the erysipelas and its results were due not to the lymph *per se* but to some latent mischief in the vaccinifer." The latter point is, perhaps, beyond proof, whilst upon the former the deliberate view of the jury is in direct opposition to an opinion proffered by one witness with an amazing amount of assurance. This witness was Dr. Walter R. Hadwen, who "has bacteriologically and microscopically investigated the subject of vaccination" and who further has given to the world his opinions in the form of "A Physician's Views on Vaccination." He was distinctly of opinion that the germ of erysipelas exists in calf-lymph and that the erythema and acute inflammation arising from a vaccine vesicle are always more or less erysipelatous. There can be little wonder that the coroner wished to be further advised on this matter, for if anything on which reliance can be placed has come out of recent investigations into the composition and action of vaccine lymph it is that the specific effects of vaccination are entirely dissociated from the action of erysipelas-producing germs and that the erysipelatous reaction is something perfectly distinct from, though when the conditions are bad often associated with, the vaccination reaction. Had Dr. Copeman's experiments with glycerinated calf-lymph proved nothing else than this they should have removed any doubt there may ever have been on this score, although the millions of vaccinations which have been carried out under cleanly conditions, without the occurrence of anything more than we should expect to see occurring in any superficial exposed wound, should be sufficient to demonstrate the inaccuracy of statements such as the above. It is not long ago that "healthy, laudable pus" was looked upon as almost an essential accompaniment to the healing of a deep wound; but we should not on that account in the present phase of surgical treatment lay ourselves out to obtain such pus during the process of healing. In the same way, though it may be admitted that erythematous and even erysipelatous complications may, owing to bad hygienic conditions, careless or improper dressing, and uncleanly conditions, have supervened before asepsis and antisepsis were thought of, there can in the present state of bacteriological and clinical knowledge be no excuse for the loose and irresponsible statements which are now made by many who should at least know better. Would any sane man at the present day contend that suppuration, erysipelas, or phagedæna is, any one of them, necessarily associated with accidental or surgical wounds simply because these conditions were of such frequent occurrence in hospitals in pre-antiseptic days? Are we not justified in asking the same question in connexion with vaccination and erysipelas?

TUBERCULOSIS AND THE PUBLIC HEALTH.

WE are glad to see that the question of tuberculosis as it affects the public health is receiving as much attention on the other side of the world as on this. The exclusion of all tuberculous persons from New Zealand is probably a counsel of perfection, but apart from such sweeping measures as this there still remain many things which might be done to lessen the scourge of tuberculosis. In the course of an interesting paper read before the Australasian Association for the Advancement of Science at Sydney in January, 1898, Dr. G. L. Mullins raised this question. He first of all gave statistics of the number of deaths from pulmonary phthisis and other tuberculous diseases, and he then referred to the cause of tuberculosis and quoted instances showing how it is communicated from the lower animals to man and *vice versâ*. The dangers arising from tuberculous milk and meat were pointed out and Dr. Mullins stated that it is the practice in Sydney to condemn the whole carcase even in cases where the tuberculous lesions are strictly localised. In making some suggestions for preventive measures Dr. Mullins laid stress upon the value of plenty of air and plenty of sunlight. He proceeded to give some excellent rules for the isolation as far as possible of phthisical patients and advised that phthisical children should not be admitted to boarding schools unless they could have separate rooms for sleeping in and provision could be made for the destruction of the expectoration. The paper concluded with some account of the climatic treatment and suitable places for carrying this out in Australia were mentioned, such as the western slopes of the Blue Mountains, the Riverina, and the great plains between the MacIntyre and Gwydir rivers. In conclusion, Dr. Mullins appealed for the coöperation of individuals of the community. "The public must be made to understand ..... that their lives depend to a great extent upon the actions of one another." These

are sound words and the sooner the majority of people in all lands grasp their significance the better for the health of the world.

THE PHYSIOLOGICAL ACTION OF CHLOROFORM.

THERE is no doubt that in spite of the vast amount of valuable work which has already been done to elucidate the mode in which chloroform affects the body there are still many questions connected with its action which require further elucidation. Dr. Keefe[1] of Springfield, Massachusetts, published at the Berlin Congress, 1890, his criticisms upon the much-discussed theory of chloroform syncope. He has more recently issued a pamphlet in which he discusses some of the views recently advanced. Dr. Keefe contends that death in early anæsthesia, or as he prefers to call it "before complete sopor," is frequently caused by respiratory arrest while in later stages of anæsthesia death arises from cardiac syncope. This view is opposed to the commonly accepted idea that cardiac syncope may occur quite early, while arrest of respiration usually results from accumulation of the drug in the blood. Death in ordinary anæsthesia results, he thinks, from the action of chloroform upon the nerve endings in the lungs and principally upon the medullary centres rather than upon any direct action on the circulatory or respiratory organs themselves or upon the muscular fibre contained in them. Dr. Keefe has performed some experiments which lead him to believe that cardiac failure in the lower animals always occurs in the "post-soporous period." The fact that Dr. Keefe has not published details or photographic records of his tracings lessens the weight of these findings as against those of others who have arrived at contrary conclusions and have kept a careful record of their research. Indeed, it must be admitted that in the present stage of the controversy what is required is rather experimental work than *a priori* reasoning upon the conclusions of others. It is of great moment in all complex inquiries such as that which Dr. Keefe has undertaken that not only the conclusions should be in our hands but the full evidence upon which the conclusions are based. Dr. Keefe's views are distinctly interesting and novel and we shall welcome a fuller account of them, especially if accompanied with details of his experiments and reproductions from photographs of his respiratory and circulatory curves.

[1] Chloroform and Ether, Boston, 1897.

VACCINATION OFFICERS IN THEIR RELATION TO THE VACCINATION BILL.

THERE are few public servants whose lot is less to be envied than that of the vaccination officer in districts where vaccination is a dead letter and where the guardians refuse to support him. In not a few cases which have come to our notice the vaccination officer has received almost no remuneration in spite of the fact that he sends out the usual notices and performs other equally unpopular duties. He is paid by results, and where the guardians fail in their duty his reward is but small, while his post may be an intensely disagreeable one. Little wonder is it therefore that vaccination officers are anxious that under the new Bill this unsatisfactory state of affairs shall no longer be maintained and in their efforts we wish them success. It seems that these officers see difficulties in the way of postponing the age of vaccination to twelve months of age as they think that cases which have removed to other districts will not be so readily traced as under the present arrangements. Domiciliary vaccinations they regard with favour though they suggest the desirability of retaining a central station for each union. With a view to impressing these views upon the Local Government Board they are seeking an audience with Mr. Chaplin at which they will urge that their pecuniary position may be more clearly defined and that they should receive a satisfactory fee based upon the birth-rate of the district which they serve. Under any circumstances it is to be hoped that the utterly absurd position which these officers now occupy in certain districts may be put an end to. The secretaries of the Public Vaccinators' Association are Mr. V. A. Jaynes, 157, Jamaica-road, S.E., and Dr. A. E. Cope, 26, Bessborough-gardens, S.W.

THE President of the Board of Agriculture received a deputation on Tuesday to protest against the exportation of decrepit horses to continental ports. Sir Howard Vincent, M.P., who introduced the deputation, gave evidence as to the extraordinary growth of the trade in recent times and Lady Burdett-Coutts and Sir George Measom supported his arguments. Mr. Walter Long promised that his department would lend every assistance to the humanitarian efforts of the deputation and of the Society for the Prevention of Cruelty to Animals.

THE deputation from the various institutions interested in the London University Commission Bill was received by both sections of the metropolitan Members at the House of Commons on Monday last, many of whom expressed their cordial approval of the Bill. Dr. F. Taylor, Dr. Allchin, and Mr. Stanley Boyd represented the medical interests. Mr. Balfour intends to take the second reading on the first Tuesday after the Easter holidays.

THE annual mess of the Volunteer Medical Staff will take place at Limmer's Hotel on Wednesday, May 4th, when Sir Joseph Fayrer will preside. Volunteer medical officers wishing to be present should communicate with Surgeon-Captain Rory Fletcher, "Croome," Streatham-park, S.W., the honorary secretary.

WE much regret to hear that the plague which has appeared at Jeddah is reported to be spreading. As the pilgrims are beginning to arrive this must be regarded as a serious matter and one requiring the prompt action of the European sanitary boards, to whom, it is alleged, the Turkish authorities seem inclined to leave the question.

THE Parliamentary Bills Committee of the Manchester Medico-Ethical Association have petitioned the Duke of Devonshire in favour of the appointment of a dentist to serve as a Crown nominee upon the General Medical Council in the room of the late Sir Richard Quain.

H.R.H. PRINCESS CHRISTIAN OF SCHLESWIG-HOLSTEIN, accompanied by H.R.H. Princess Henry of Battenberg, inaugurated on Tuesday last the new Victoria Ward of the Foreign Hospital at Nice on behalf of the Queen.

AT the Royal Infirmary, Newcastle-on-Tyne, Mr. Frederick Page has recently tied the external iliac artery transperitoneally for femoral aneurysm. We hope to publish the full notes of this rare operation.

H.R.H. THE DUKE OF CONNAUGHT will preside at the Festival Dinner of St. Mark's Hospital to be held on Monday, April 25th, at 8 P.M., at the Whitehall Rooms of the Hôtel Métropole.

IS A SMALL-POX HOSPITAL A NUISANCE?

THE case of Harrop *v.* the Corporation of Ossett (Yorkshire), which has occupied the attention of Mr. Justice Romer in the Chancery Court for four days, illustrates once more the difficulties which sanitary authorities have in providing hospitals for the isolation of small-pox. The Corporation of Ossett are the urban sanitary authority and they have for several years had a small, old-fashioned sanatorium nearly a mile outside the town for the isolation of their small-pox cases. About two years ago they burned the old building and built a new one to accommodate eight small-pox patients on practically the same site. Although the number of patients was not increased, and the conditions were not altered, this seems to have aroused the owners of the neighbouring land to the fact that their interests were being damaged by the small-pox hospital and they commenced an action for an injunction to restrain the authorities from using the hospital for the reception of small-pox patients. A valuable house belonging to the plaintiffs, who are trustees of the estate on which it is situated, is situated 200 yards from one corner of the hospital land. On the other side, a little nearer, is a rag or shoddy merchant's factory where an average of some ten hands for sorting rags are employed; and just within the quarter mile zone are some 100 cottages, though these are not within the 400 yards zone. The site was stated to be the most suitable that could be chosen in the neighbourhood and the question turned, as many similar cases have done before, on whether small-pox can spread through the air to the distance named. Many medical men were retained on either side to give evidence on this question of aerial convection. On behalf of the plaintiffs the following evidence was given.

Mr. SHIRLEY MURPHY expressed his strong opinion that small-pox was disseminated by aerial convection and thought it might travel under favourable circumstances to a distance of many hundred yards. He admitted in cross-examination that his views were founded more particularly on the study of other people's work.

Dr. EVANS of Bradford also gave evidence to a similar effect and mentioned his more recent experiences. In cross-examination he admitted that he had changed his view in recent years and that the only grounds on which he had come to believe in the aerial convection theory were his recent experiences at Bradford and that the facts on which he relied did admit of other explanation.

Dr. WILSON, medical officer of health of Hastings, expressed his belief in the theory of aerial convection but, like the last witness, he had only recently come to that opinion. The ground for his change of belief was, he stated, his experience in the Hastings epidemic; and in cross-examination he admitted that he had succeeded in tracing all the Borough cases to direct infection and that the residue of cases available for an investigation of the question of aerial spread was very small. In his view small-pox could spread through the air to any distance up to 600 yards, but beyond that distance there was no risk.

Dr. SINCLAIR WHITE, late medical officer of health of Sheffield, took the view that the question of aerial convection was not one of very great importance, for as a matter of experience cases do arise around a small-pox hospital, and whether they were due to aerial spread or to direct infection was not a point of very great importance. In cross-examination he was, however, bound to admit that there had been some instances of small-pox hospitals where such a spread had not occurred.

Dr. PRIESTLEY, late medical officer of health of Leicester and now medical officer of health of Lambeth, gave evidence based on his experience at Leicester and thought that a hospital was undoubtedly a great source of danger to the district around. At Leicester a large number of cases had arisen around the hospital, though whether they were due to aerial or direct infection he was not prepared to say in every instance. On these grounds he thought that hospitals should not be placed near houses. Like the two preceding witnesses he had changed his view from one of opposition to, to one in favour of, the aerial convection. Questioned on the administration of the proposed Ossett hospital he thought that the hospital, although it only provided for eight beds, in two wards of four each on the same floor, would require six nurses to work it when full and that it was an objection that the nurses' residence was in a separate building from the hospital.

Dr. BRUCE LOWE before being sworn protested against inspectors of the Local Government Board being called as witnesses, because if compelled to "take sides" on these questions it weakened their position in the eyes of the public. In his evidence he stated that he had only had one opportunity for forming an opinion as to whether a small-pox hospital was a source of danger to the inhabitants around and that was in the Hastings epidemic. He was of opinion that the facts could not be adequately explained except on the theory of aerial convection.

Dr. ADAMS had had experience in Warrington as a private practitioner and as medical officer of health of the district in which the Ship Canal works were carried on, among the workmen of which small-pox had broken out. He had had charge of a temporary hospital for twenty patients amongst these workmen and although the small-pox ambulance had frequently passed through the village where the workmen lived and their dwellings were not far away no case had arisen amongst them. He had formed the opinion that a small-pox hospital is a source of danger to the inhabitants around by one or other of the three means by which small-pox has spread—direct, mediate, or aerial—and he regarded the aerial spread, though existing, as the least potent and least important factor. This completed the medical evidence for the plaintiffs.

For the defendants the following medical evidence was given.

Dr. ORME DUDFIELD could not agree with the previous witnesses in their belief in aerial convection. He had devoted a great many years to this question and he had come to the conclusion that Mr. Power's observations, which had taken place in his neighbourhood, and those of others mentioned, were quite adequately explained by direct or mediate infection. Moreover, he based his disbelief in that hypothesis on instances where large communities, such as that of a workhouse adjacent to the small-pox hospital, and in another case the large schools of Darenth adjacent to the small-pox camp, had escaped from small-pox; and this exemption could not be explained if aerial convection were true. He was pressed in cross-examination to define "particulate matter," a term used by those who supported the theory. He was cross-examined at some length and gave it as his experience that small-pox could always be traced to direct or mediate contagion if sufficient time and pains were expended.

Dr. RICKETTS, resident medical officer of the small-pox ships at Long Reach, stated that he had had an experience of many years at the ships, during which time upwards of 5000 cases of small-pox had been admitted. He mentioned a case which had arisen in a dredger that was moored within 200 yards distance of the small-pox ships. He regarded this case at the time as an instance of aerial spread because he was unable to trace any direct infection, and as a matter of fact he had published this case as an instance of aerial convection. But upon subsequent inquiry it was discovered that this patient's home was at Greenwich. He developed small-pox on July 1st and it was found that he had visited his home at Greenwich on June 17th and 18th and that from this district about that time upwards of forty cases had been removed. He believed that all cases where the aerial convection was believed to be in operation could be similarly traced to direct infection if the conditions for the inquiry were sufficiently favourable.

Dr. T. D. SAVILL, who had visited and inspected the proposed hospital site, was of opinion that it was the best possible site under the circumstances and that the district around was very sparsely scattered with houses. The building was situated on high, sloping ground, with a good water-supply and a good fall for drainage. The arrangements of the hospital were, on the whole, very good for such a small hospital, and he thought that it was an advantage rather than a disadvantage for the nurses to pass through the air to and from the administrative block near by, because pure fresh air was one of the best means of disinfecting people and things. He had devoted two and a half years to the Warrington inquiry and although the incidence of the cases appeared on casual inquiry to be in graduated series of zones around the old and the new hospitals respectively, on closer investigation the centre of infection was really found to be three unisolated cases near the old hospital, and an open space where people congregated, near the new one. The percentage of infected

houses ranged themselves in graduated zones around these localities and not around the hospitals. The hospitals themselves were a potent source of direct and mediate infection and there were two very notable instances of that epidemic which, in his opinion, negatived the theory of aerial convection. The first of these was the exemption of the workhouse, situated close beside the old hospital, from any cases which could not be quite adequately explained by direct or mediate infection. The second was a similar exemption from cases not due to direct infection among the hands of a big brewery situated near the new hospital. He admitted in cross-examination that small-pox could spread to the limits of an ordinary room through the air, but he would not admit that it could spread beyond this distance in presence of pure fresh air. His experience went to show that the theory of aerial spread was not tenable and was a wholly unnecessary one to explain the facts of any of the epidemics which had been brought to his notice. Asked as to what the prevailing opinion in the profession was as to aerial convection he thought the belief was not so widely held as a few years ago. He did not regard a small-pox hospital as a source of danger to a neighbourhood provided it was properly administered and the reason why cases so frequently arose around them was due to faulty administration which could be remedied. In support of this view he mentioned instances where hospitals—e.g., some of the London ones—had existed for years without cases ever arising in their neighbourhood.

A variety of evidence was adduced on technical points having no particular medical interest.

Mr. Justice ROMER, in summing up, said he should not enter into the vexed question of the aerial convection of small-pox, about which experts differed so much. There seemed to be a tendency in some instances for cases to arise in the immediate neighbourhood of a hospital, especially when the hospital was large and the neighbourhood crowded and ill-ventilated. The explanation of this he must leave to others. On the other hand, he was not satisfied that when a hospital was well managed it was a source of danger and constituted a legal nuisance, especially when it was small as in the present instance. Moreover, he had before him the important fact that a small-pox hospital had been in existence on this very site for several years without any ill-result having arisen either to the defendants or others. There was happily one point on which all the medical witnesses appeared to agree—namely, that vaccination offered a most complete protection against the disease. In these circumstances the court considered that by taking reasonable precautions the plaintiffs and others in the neighbourhood could protect themselves from risk if any existed and the verdict must be for the defendant corporation, with costs.

THE NINTH INTERNATIONAL CONGRESS OF HYGIENE AND DEMOGRAPHY.

ACCORDING to the latest details concerning the forthcoming International Congress of Hygiene the Italian as well as the Spanish and French railway companies accord a 50 per cent. reduction in railway fares to members of the Congress. With regard to the reduction on the French lines it will be seen that the British Committee of the Congress and our Special Correspondent have qualifying information.

The Spanish lines extend this reduction to the families of the members, but on the French and Italian lines full fares will be charged for all except the actual members of the Congress. Under these circumstances it will probably be necessary to book only for Irun, the Spanish frontier town, and there to take tickets afresh for Madrid. There seem to be but two through trains per day: a second class train leaving Paris at 11.18 A.M. from the Orleans railway station and reaching Madrid at 6.10 A.M. the second day following—a journey, therefore, of forty-three hours; the other train leaves Paris at 10.30 P.M. and reaches Madrid about the same time—i.e., 6.55 A.M., a journey of about thirty-three hours, but this train only takes first-class passengers. Then there is the Sud Express, which is much quicker, much dearer, and only runs twice a week. By far the most comfortable way of travelling to Madrid is to break the journey either at Bordeaux, at Bayonne for Biarritz, or at Burgos. The latter town, though well worth seeing, is too far and Bordeaux is too near; the real half-way stage is undoubtedly Bayonne or Biarritz. The definite cards of membership will be given to the delegates on their arrival at Madrid, together with a badge to wear during the Congress week. The card of identity with the railway coupons attached will suffice to obtain the reduction on the railway fares, and these are sent immediately on receipt of the subscription of 25 pesetas. The short line from Bobadilla Junction to Algeciras, for Gibraltar, is the only railway in Spain that does not grant a reduction of fares to members of the Congress. To ensure greater dispatch the subscription should be sent to the treasurer of the Congress, Señor D. Pablo Ruiz de Velasco, calle Mayor, 18 y 20, Madrid. As already stated in our previous issues, the reduction in railway fares lasts from March 20th to May 10th. It is customary in Spain to pay at the hotels a fixed sum per day, which includes the principal meals and the room. The four chief hotels at Madrid are the Hotels de la Paix, de Paris, de Roma, and Inglés. Here the minimum charge is 15 pesetas per day. At the Hotels de Rusia, de Embajadores, de Sevilla, Peninsular, del Universo, de Santa Cruz, and Bilbaino the charge is 10 pesetas per day. There are other hotels at 8 and even only 6 pesetas per day and many boarding-houses. The above hotels will send interpreters to meet the trains or members of the Congress Committee will be present if warned in time. They will be recognised by a badge worn in the left button-hole consisting of the arms of Spain in gold, silver, and enamel and a ribbon of the national colours.

The Congress will meet in the morning and sit in sections at the Palace of the Library and Museum, situated on the Paseo de Recoletos. There will be no sittings in the afternoons, so that the members of the Congress will be able to visit all establishments connected with public health, poor relief, education, &c., and every facility will be afforded to them for this purpose. We have already announced that Her Majesty the Queen Regent will receive the members of the Congress at the Royal Palace. The Municipality of Madrid will give a reception at the Town-hall and the Premier at the Presidency of the Council. We can now add that this latter reception will take the form of an afternoon tea and, further, that the Minister of the Interior will entertain the members of the Congress at a banquet, that the Madrid Medical College will also invite the Congress to a banquet and the Faculty of Medicine will organise an academical reception. The literary society and club, the Athenæum of Madrid, will give a *soirée*. There will be a gala representation at the Spanish Theatre and a festival in the Campos Elíseos. Nor is this all, for while the Congress holds its meetings in the mornings there will be afternoon excursions to the Escurial, to Aranjuez, and to Toledo. These excursions will be very inexpensive; the most expensive, that to Toledo, will only cost 21 pesetas. During Easter week the principal bull-fights of the year take place at Madrid, so that the members of the Congress will, if they wish, be able to witness this Spanish "sport." After the Congress a grand excursion to Andalusia will include visits to the towns of Cordova, Seville, and Granada, so that the members may inspect the Mosque of Cordova, the Alcazar of Seville, and the Alhambra of Granada and thus obtain some idea of the high degree of civilisation which the Moors introduced into Europe. This excursion, which will last eight days, will cost, first-class, 315 pesetas. A guide to Madrid, published in Spanish and in French, will be given to each member of the Congress, containing much useful information, notably on public health questions. During the Congress week a daily paper will be issued in Spanish and in French giving the programme of the sittings, details as to the receptions, &c. At the *locale* of the Congress a post- and telegraph-office will be installed and interpreters will be present to assist members of the Congress. We may add that the telegraphic address of the Congress is—"Congresso Higiene, Madrid."

We are requested by the British Committee to state that Messrs. T. Cook and Son, Ludgate Circus, have made arrangements with the French Railway Companies by which they can issue first-class tickets to Irun and back *viâ* Calais and Paris for £6 15*s.* each. The "Identification Cards" required to obtain the reduction on the Spanish railways can be procured by members from the honorary treasurer,

Professor Corfield, 19, Saville-row, W., from whom all information with regard to tickets, &c., can be obtained.

Our Special Correspondent, now on his road to Madrid, informs us that he went on Tuesday to the Orleans railway terminus in Paris to make inquiries. He there discovered that nothing whatsoever was known about the reduction of 50 per cent. on the fares of delegates to the Madrid Congress. At the booking office no instructions had been received, and on showing his Congress ticket the booking clerk said it was the first of the sort he had seen. On being referred to the station master's office our correspondent was informed that several French medical men had already called to make inquiries, but that the French railway company had issued no orders whatever in regard to the Madrid Congress and that so far no one was authorised to grant the reduction in question. Now this reduction, according to the Spanish circulars, should have come into operation on March 20th and yet on March 29th no one knew anything about it. If the French Committee organising the French delegation to the Congress take active measures, or if similar efforts are made from Madrid, the reduction in question may be granted in time for most of the members of the Congress, but as yet it would not be safe to count upon it. As matters now stand, and unless subsequently more favourable information is received, the best plan will be to book only as far as the Spanish frontier town of Irun. There in all probability the reduction will be granted for the Spanish portion of the journey.

A SICK AND OBSTETRIC NURSES BILL.

DR. ALEXANDER MCCOOK WEIR of East Sheen has sent us a draft of a proposed Bill for the institution of sick and obstetric nurses, which he believes to be free from the faults of measures for the registration of midwives while it provides certain safeguards for the parturient poor. We are unable to print this draft in full—it is not a short document—but we present our readers with an outline of Dr. McCook Weir's proposals, which are evidently the result of care, forethought, and a knowledge of the situation to be dealt with, though they do not in our opinion wholly meet the case.

Dr. McCook Weir's Bill begins by making it illegal "for any person (male or female) to assume the title of midwife, or to practise as such, or to act as a sick or obstetric nurse, for gain or otherwise, without the supervision and control of a fully qualified medical practitioner." He then makes it incumbent upon the public authority (board of guardians, parish council, voluntary nursing association, &c.) adopting the Act "to employ a sufficient number of sick and obstetric nurses to meet the requirements of the poor and working class population of their respective districts," and no one shall be thus employed who cannot "produce a certificate of competence from a duly recognised teaching authority that she is proficient in the art of sick and obstetric nursing." The authorities adopting the Act are to "be held responsible for its due administration to the Lords of the Council or to the Local Government Board" and are, among other things, to "keep a register of such nurses"; to "provide for the payment of these nurses either by means of the public rates or by voluntary subscriptions and donations and by the contributions of the beneficiaries under the Act; to "keep a complete list (to be revised from time to time) of the medical men practising midwifery in their respective districts"; and "to take steps by advertisement or otherwise to make known the benefits of the association to the poor of the district and if necessary to employ and pay a secretary, &c." The seventh clause is designed to limit the duties of the sick and obstetric nurses by making it an offence under the Act for any woman to prescribe, to use instruments "beyond those necessary to her calling as a sick and obstetric nurse," or to sign death certificates. By the eighth clause relieving officers are to make themselves acquainted with the pecuniary circumstances of "poor women in their respective districts who shall require the assistance of the medical officer and the obstetric nurse," and on the report of the relieving officers confinement orders will be granted by the boards of guardians upon both medical man and nurse. The last clause provides that "sick nurses shall in all cases act independently of and in no case undertake the duties of obstetric nurses," though they "shall be otherwise subject to the same supervision and control."

As we have already said, Dr. McCook Weir has evidently given time and attention to the Bill, but it is not at present in shape for practical legislation. To give one example only—suppose a voluntary nursing association were to adopt this Bill, would such an association obtain the assistance of the relieving officers? Would the relieving officers investigate cases and make reports to the voluntary association as they would to their board of guardians, and what would be the result of such reports? Who would "grant a confinement order" upon medical man or nurse?

THE TIRAH EXPEDITIONARY FORCE.

WE are glad to notice that the Viceroy of India has seized an early opportunity of vindicating the military authorities in India and the officers and soldiers who took part in the most arduous campaign of modern times from the somewhat indiscriminate attacks that have been made on the direction and conduct of the frontier war. Notwithstanding that mistakes have occurred and that the expedition has cost a good deal in life and money, it has nevertheless been conducted to a successful termination and exactly on the lines that were originally laid down. The obstacles were great and the Anglo-Indian army had to purchase its experience in what was to many of them an altogether new kind of warfare in a most difficult mountainous country. The discipline, fortitude, and bravery of the troops—British and native alike—were admirable. The recognition of the value of the services performed, however, does not, of course, exclude a severe inquiry into any alleged causes of blundering or failure with the practical object of their prevention in future. Be all this as it may, however, we are proud to know that the medical services admittedly did their work in the field thoroughly well. As regards the medical administration generally, Sir William Lockhart in his despatches on the Tirah Expeditionary Force (which have received the concurrence of the Governor-General in Council and of the Commander-in-Chief in India) states that the administration of the military medical service has been successfully and satisfactorily carried on during the same period by Surgeon-Major-General A. A. Gore, Principal Medical Officer, Her Majesty's Forces in India, through whose efforts and the ready coöperation of the officers and subordinates the Department has, at a time of pressing emergency, been able to comply with the heavy demands made upon it. The extent of these demands may be best realised from the statement that it was considered necessary to provide hospital accommodation for 12 per cent. of the troops and followers. On this basis 6526 beds were made available, including 36½ field hospitals. The accuracy of this forecast may be gauged from the fact that on Dec. 20th, 1897, the number of sick in the hospital, then at its highest, was 11·16 per cent. of the force. The results obtained in the treatment of the sick, and especially in surgical cases of wounds, have been most satisfactory.

REFORM IN HOSPITAL PROCEDURE.

MEETING AT THE WEST LONDON HOSPITAL.

ON Wednesday afternoon, March 30th, a meeting of the Board of Management and Visiting Medical Staff of the West London Hospital, together with the medical practitioners of the western district of London, was held in the board-room of the hospital, under the presidency of Mr. C. B. Keetley, the senior surgeon of the hospital. There was a large attendance and one that was clearly much interested in the subject of debate, which was the possibility of reform in hospital procedure which at present bears hardly upon the general practitioner.

Mr. KEETLEY, in opening the proceedings, explained that early in last year a conference was called and in December a hospital reform committee was appointed by the board to inquire into the whole matter and to make practical

suggestions. The suggestions made were that a paid inspector should be appointed; that almoners should be chosen; that a card of a medical practitioner should pass a patient in for consultation and treatment if desired, and that wage limits should be fixed. None of these recommendations were to be looked upon as hard-and-fast rules, but each case was to be considered on its own merits. The recommendations were referred back by the board of management of the hospital to the committee for further consideration, when the committee explained that the recommendations had been put forward as suggestions that a meeting such as the present one might discuss them. As these recommendations were, however, practically the same as those of the Hospital Reform Association and as those of the Committee of General Hospitals respecting out-patients and casualty cases, the CHAIRMAN called upon Mr. R. J. GILBERT, the Secretary-Superintendent of the West London Hospital, to read these two latter sets of recommendations, and suggested that they should then be discussed *seriatim*.

Mr. GILBERT having complied, by a vote of the meeting it was decided that the recommendations of the Committee of General Hospitals were the more practical and these were accordingly adopted for discussion.

Mr. BRINDLEY JAMES proposed the adoption of the first recommendation, which read as follows:—

That each general hospital should have an inquiry officer or out-patient clerk to inquire into the means of persons applying for free treatment, the duties of such official to include (*a*) the prevention of abuse of the charity by persons able to pay for medical treatment; (*b*) the referring of persons already in receipt of parish relief and such as are destitute to the Poor-law authorities—a large proportion of those patients really needing proper food rather than medicine.

It was understood that the recommendation did not apply to the special departments, which need special consideration owing to the fact that many of the patients come for consultation purposes and are cases of unusual interest and difficulty.

Dr. LEONARD DOBSON seconded this motion.

Dr. PENDRED moved the direct negative which Dr. G. THOMSON seconded.

After considerable discussion, in which Dr. SNAPE, Mr. R. W. LLOYD, Mr. STEPHEN PAGET, Mr. MCADAM ECCLES, Dr. ROBERT LEE, and others took part, the original motion was lost.

Dr. C. H. BENNETT proposed the adoption of the following resolution as a substitute for the one rejected:—

That in the event of any persons seeming to the medical officer seeing him as a patient at a hospital ineligible the medical officer should send a printed form of questions to the patient's last medical attendant outside to ascertain whether the patient should be refused further medical treatment at the hands of the hospital authorities.

Dr. DOBSON seconded this resolution.

Dr. LEE proposed as an amendment—

That in the opinion of this meeting some system of inquiry is necessary to prevent the abuse of hospital charity and injury to the medical practitioner, and that each hospital committee should be required to arrange for such an inquiry.

After some discussion Dr. Lee's amendment was added to Dr. Bennett's motion and both were carried.

The remaining recommendations were then discussed. The next read as follows:—

That it is desirable to restrict the number of new cases to be seen each day by the out-patient department physicians and surgeons to something like fifteen persons for each medical officer; and that the out-patients should be distributed more evenly over the week and not allowed to be crowded in such large numbers on the first days of the week.

After some discussion by Dr. SEYMOUR TAYLOR, Mr. JAMES, and others this recommendation was allowed to drop without a vote being taken.

The next recommendation read:

That although it is not practicable to strictly limit the number of patients to be treated each day by the casualty officers, it is felt that steps should be taken by each hospital to limit such cases, as far as possible, to accidents and cases of sudden illness.

This was agreed to by the meeting.

Recommendation 4 read:

That the general hospitals should as far as practicable cooperate with the local provident dispensaries, particulars of which might be placed in the out-patient waiting-rooms. The inquiry officer should be instructed to recommend patients who appear able to do so to join such dispensaries.

This was deferred for consideration on the motion of Mr. Lloyd.

Recommendation 5 read:

That patients bringing a recommendation from a local medical practitioner from a provident dispensary should have priority of other patients and when desirable the prescription should be forwarded direct to the medical practitioner recommending the patient.

This was agreed to.

Recommendation 6 read:

That the issue of Governors' letters for recommending out-patients should be discontinued provided there be a general agreement amongst those general hospitals now issuing them to their subscribers.

This recommendation was also agreed to.

Recommendation 7 read:

Though the committee only representing general hospitals have therefore considered the subject primarily as appertaining to the general hospitals they feel that some analogous reform, especially as regards inquiry into the means of applicants for treatment, should be adopted also by the special hospitals.

This recommendation was considered to embrace subjects not germane to the purposes for which the meeting had been summoned and was not discussed.

The proceedings then terminated with a vote of thanks to the chairman.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Stretford Urban District.—During 1897 there were notified in this district 727 cases of measles, the greatest monthly incidence being in December, when 134 cases came under notice. Mr. Heslop observes that at the beginning of the epidemic many people were apparently unaware that this disease was notifiable in Stretford and it is to this cause that the rapid spread among school children is to be attributed, the parents sending the children to school while the latter were suffering from the initial catarrh. It is, indeed, for preventive purposes, this initial catarrh which ought to be notified, but it would be a difficult matter to take proceedings against parents for failing to recognise this symptom as part of an attack of measles. The fatality rate during the epidemic in question was 1·9 per cent.

Wimbledon Urban District.—Mr. E. Pocklington reports that in this district, with an estimated population of 35,000, there were notified during 1897 forty-four cases of erysipelas, but he fails to see the advantage of the notification of this disease and thinks that if the notification of measles were substituted for that of erysipelas much good would result. There seems a fair prospect that Wimbledon will shortly be provided with separate hospital accommodation for small-pox, there being a proposal before the Local Government Board to form the urban and rural districts of Croydon and the urban district of Wimbledon into a joint small-pox hospital district, a project which we hope to see carried out.

West Hartlepool Urban District.—At the public abattoir at Hartlepool 3412 beasts were slaughtered during 1897, and of this number 18 carcasses were condemned for extensive tuberculosis, the majority of them being those of old cows. Dr. S. Gourley protests against the trade of egg pickling, which gives rise to a very offensive smell, being carried on in impromptu places in the town.

River Tyne Port District.—Of the 15,351 vessels inspected in the waters of this port last year 342 were found with structural defects and 1570 in a dirty condition. The water boats used for conveying water to the ships were all inspected and found to be in good condition, while in the case of 56 ships which came from infected or suspected ports the drinking-water was discharged and the tanks were cleansed. Trawlers and herring boats arrived at the quay, North Shields, to the number of 13,460, and 460 had to be cleansed and deodorised. Dr. Edmund Harker reports that no case of overcrowding came under observation during the year, but it was found necessary to communicate with the offenders in 42 cases for the evolution of dense smoke from steam vessels.

Kensington Urban District.—Dr. Orme Dudfield, in his monthly report for February, embodies the annual report for 1897 of Miss de Chaumont, the lady inspector of workshops, &c. He speaks highly of the value of such inspectors in the district of Kensington, and observes that the initiation of the Kensington vestry in appointing female inspectors has been extensively followed in the country. Certainly Dr. Dudfield appears to have been most fortunate in the selection of his officers. Miss de Chaumont reports that she

found during the year twenty-six rooms overcrowded, while in many of the registered premises the roofs and floors were in a defective state. At two dressmakers' establishments the atmosphere was found to be close and offensive from heating by gas jets. It is gratifying to learn that Miss de Chaumont's visits are nearly always welcomed by the employers who, she states, recognise the duties and obligations imposed upon them by the Factory Acts.

Poole Urban District.—There were 25 cases of erysipelas notified in this district during 1897 and of this number no less than 13 were notified by one practitioner. These figures are somewhat puzzling, more especially as 23 of the total number of cases were in persons five years of age and upwards. It would not seem, however, that there was any question as to "post-vaccinal" erysipelas. We are glad to see that Dr. Herbert Lawton has very properly made a survey of the gathering grounds, settling ponds, &c., of the Poole Waterworks Company, and it is satisfactory to note that he found the collecting grounds and storage ponds "free from any pollution." It is to be presumed, too, that he found these places free from *liability* to pollution, because this is obviously the crux of the position. It would have been of much interest had Dr. Lawton furnished an account of the waterworks in his report and had he placed on record any suggestions he might wish to make in regard to their management. It is always well to set out the facts, more particularly as in the event of the water becoming at any time specifically contaminated it may be necessary to refer to the condition which actually obtained at the time of Dr. Lawton's survey. The report before us is somewhat brief for a rapidly increasing district of some 19,000 persons, and it might profitably be a little expanded in future.

Carlisle Urban District.—Mr. William Brown devotes particular attention in his current annual report to the subject of tuberculosis, his observations at the Carlisle public slaughter-house during 1897 having impressed upon him the extent to which tuberculous udders obtain. He tells us that of thirty cow carcasses condemned as unfit for human food on account of general tuberculosis one in every five had marked tuberculous disease of the udder. Some of the cows thus affected had, Mr. Brown believes, been milked shortly prior to their slaughter. He submits the following proposals to his sanitary authority:—1. That all dairy cattle from which milk is derived for distribution in the Carlisle urban district be subjected to regular veterinary inspection. 2. That a more rigid enforcement of the city by-laws as to cubic space of cowsheds be practised. 3. That as an auxiliary measure the Carlisle Urban District Council extend the provisions of the Infectious Diseases Notification Act to pulmonary phthisis, tuberculous meningitis, and tabes mesenterica. There is some material in proposal No. 3 for discussion, more particularly in reference to tuberculous meningitis, but we cannot here spare the space.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 5974 births and 4342 deaths were registered during the week ending March 26th. The annual rate of mortality in these towns, which had increased in the three preceding weeks from 20·7 to 21·8 per 1000, declined again last week to 20·2. In London the rate was 20·0 per 1000, while it averaged 20·3 in the thirty-two provincial towns. The lowest rates in these towns were 12·9 in Derby, 14·5 in Blackburn, 15·5 in Croydon, and 15·9 in Norwich; the highest rates were 25·0 in Oldham, 25·1 in Preston, 25·4 in Bradford, and 31·2 in Swansea. The 4342 deaths included 550 which were referred to the principal zymotic diseases, against 538 and 554 in the two preceding weeks; of these, 242 resulted from measles, 123 from whooping-cough, 82 from diphtheria, 42 from scarlet fever, 30 from diarrhœa, 29 from "fever" (principally enteric), and 2 from small-pox. No death from any of these diseases was recorded last week in Plymouth, in Norwich, or in Derby; in the other towns they caused the lowest death-rates in Croydon, Preston, and Huddersfield, and the highest rates in London, Leicester, Bristol, and Oldham. The greatest mortality from measles occurred in London, Brighton, Swansea, Halifax, Oldham, Bristol, and Leicester; from whooping-cough in Leeds, Oldham, Hull, and Gateshead; and from "fever" in Oldham. The mortality from scarlet fever showed no marked excess in any of the large towns. The 82 deaths from diphtheria included 53 in London, 5 in West Ham, 5 in Cardiff, and 3 in Birkenhead. One fatal case of small-pox was registered in Leeds and 1 in Sunderland, but not one in London or in any other of the thirty-three towns; only one small-pox patient was under treatment in the Metropolitan Asylum Hospitals on Saturday last, March 26th. The number of scarlet fever patients in these hospitals and in the London Fever Hospital at the end of the week was 2371, against 2534, 2145, and 2419 on the three preceding Saturdays; 189 new cases were admitted during the week, against 175, 197, and 255 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 429 and 430 in the two preceding weeks, declined again last week to 402, and were 54 below the corrected average. The causes of 51, or 1·2 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Cardiff, Leeds, Newcastle-upon-Tyne, and in eleven other smaller towns; the largest proportions of uncertified deaths were registered in West Ham, Liverpool, Preston, and Halifax.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 25·0 and 24·1 per 1000 in the two preceding weeks, further declined to 22·9 during the week ending March 26th, but was 2·9 per 1000 above the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 15·3 in Greenock and 17·8 in Aberdeen to 23·4 in Edinburgh and 25·1 in Glasgow. The 692 deaths in these towns included 25 which were referred to measles, 25 to whooping-cough, 10 to diarrhœa, 7 to scarlet fever, 3 to diphtheria, and 3 to "fever." In all, 73 deaths resulted from these principal zymotic diseases, against 81 and 74 in the two preceding weeks. These 73 deaths were equal to an annual rate of 2·5 per 1000, which was slightly below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of measles, which had declined from 20 to 17 in the three preceding weeks, rose again to 25 last week, of which 21 occurred in Glasgow and 3 in Edinburgh. The 25 deaths from whooping-cough exceeded by 4 the number in the preceding week and included 19 in Glasgow. The fatal cases of scarlet fever, which had been 7 and 10 in the two preceding weeks, declined again to 7 last week, of which 3 occurred in Edinburgh and 2 in Glagow. The 3 deaths from diphtheria showed a further decline from recent weekly numbers, and included 2 in Edinburgh. The 3 fatal cases of "fever" were all recorded in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 187 and 161 in the two preceding weeks, rose again to 175 last week, and were 16 above the number in the corresponding period of last year. The causes of 26, or more than 6 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 37·3 and 35·1 per 1000 in the two preceding weeks, further declined to 29·5 during the week ending March 26th. During the past twelve weeks of the current quarter the death-rate in the city has averaged 32·2 per 1000, the rate during the same period being 21·7 in London and 20·1 in Edinburgh. The 198 deaths registered in Dublin during the week under notice showed a decline of 39 from the number in the preceding week, and included 11 which were referred to the principal zymotic diseases, against 16 and 17 in the two preceding weeks; of these, 6 resulted from "fever," 3 from whooping-cough, and 2 from scarlet fever, but not one from small-pox, measles, diphtheria, or diarrhœa. These 11 deaths were equal to an annual rate of 1·6 per 1000, the zymotic death-rate during the same period being 3·3 in London and 1·8 in Edinburgh. The deaths referred to different forms of "fever," which had been 5 and 7 in the two preceding weeks, declined again to 6 last week. The 3 fatal cases of whooping-cough corresponded with the number recorded in the preceding week. The deaths from scarlet fever, which had been 6 and 4 in the two preceding weeks, further declined to 2 last week. The 198 deaths in Dublin last week included 25 of infants

under one year of age and 52 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons were below those recorded in any recent week. Ten inquest cases and 6 deaths from violence were registered; and 65, or nearly a third, of the deaths occurred in public institutions. The causes of 12, or more than 6 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

NAVAL MEDICAL SERVICE.

DEPUTY-INSPECTOR-GENERAL OF HOSPITALS AND FLEETS JAMES WILLIAM FISHER, M.D., has been promoted to the rank of Inspector-General of Hospitals and Fleets in Her Majesty's Fleet. Staff-Surgeon James Porter, M.A., M.B., has been promoted to the rank of Fleet-Surgeon in Her Majesty's Fleet.

The following appointments are notified:—Fleet-Surgeon: William E. Breton to the *Victory*, additional, for Portsmouth Dockyard. Staff-Surgeons: Herbert E. Marsh to the *Prince George* and Robert Hickson to the *Wildfire*, additional, for the *Sans Pareil*. Surgeons: William Hackett to the *Cambridge*, lent, and David W. Hewitt to the *Triton*, lent.

ARMY MEDICAL STAFF.

Surgeon-Major Lilly proceeds from Pembroke Dock to Devonport to assume Medical Charge of Crown Hill Barracks and Fort and Woodlands Fort. Surgeon-Major James, on being relieved in London by Surgeon-Major Wilson, joins at Aldershot as second in command and chief instructor of the depôt and training school of the Medical Staff Corps, Aldershot. Brigade-Surgeon-Lieutenant-Colonel W. H. Steele (retired) takes over the medical charge of troops at Bristol in the place of Deputy-Surgeon-General H. C. Herbert, who retires on having reached sixty-five years of age. Surgeon-Captain Whitestone proceeds to Holywood for duty.

INDIA AND THE INDIAN MEDICAL SERVICES.

The Queen has approved of the following promotions among the officers of the Indian Medical Service:—Surgeon-Lieutenant-Colonels to be Brigade-Surgeon-Lieutenant-Colonels: *Bengal Establishment:* Geoffrey Craythorne Hall, John Thomas Brownrigg Bookey, and James Young. Surgeon-Lieutenants to be Surgeon-Captains: *Bengal Establishment:* Charles John Milne, Algernon Francis Stevens, Clement Henry Bensley, Francis Hammond Watling, Arthur Gwyther, Edgar John Morgan, William Carr, and John Archibald Hamilton. *Madras Establishment:* Frank Wall and Charles Montague Mathew. *Bombay Establishment:* Samuel Evans and James Haldane McDonald. The Queen has approved of the retirement from the Service of the under-mentioned officers: Brigade-Surgeon-Lieutenant-Colonel Sir George King, K.C.I.E., Bengal Establishment, and Surgeon-Captain Gilbert Capel Hall, Half-pay List, Madras Establishment.

DEATHS IN THE SERVICES.

Brigade-Surgeon Joseph Johnston, M.D. Edin. (retired), late 26th Cameronians, on March 15th, at St. John's Wood-park, N.W., in his sixty-seventh year. He entered the army in 1854, was promoted surgeon in 1867, surgeon-major in 1873, and retired on half-pay with the honorary rank of brigade-surgeon in 1880. For many years he had the medical charge of the Royal Horse Artillery at St. John's Wood.

Deputy-Inspector-General of Hospitals and Fleets Leonard Lucas was on March 28th found lying dead on the main line of the London and North-Western Railway between Gaerwen and Bodorgan, Anglesey. Death was apparently caused by an express train which had travelled in the opposite direction. The deceased gentleman entered the navy as a surgeon in 1857 and retired in 1881, when he was made an honorary Deputy-Inspector-General of Hospitals and Fleets. He served in the action against the Ashantis in October, 1873 (Ashanti medal), and was Staff-surgeon of the *Tamar* during the Zulu War from 1877 to 1879 (medal).

Surgeon-General Samuel Currie, C.B., M.D. Edin., honorary physician to the Queen, at his residence, Lexham-gardens, London, on March 25th, aged eighty-one years. He had a long and distinguished military career and filled in his time many important posts. The deceased officer saw much field service and received many medals and decorations. In addition to having been an excellent medical officer and good administrator his personal qualities, conscientious rectitude and amiable disposition made him friends everywhere he went during his service in the Army Medical Department. He was educated at Edinburgh, where he took the degree of M.D., and became L.R.C.S. Edin. in 1835. He entered the Army Medical Service the following year and served at the battle of Maharajpore and also in the Sutlej Campaign in 1846. He was Field Medical Inspector of the Expeditionary Force in the North of China in 1860, was present at the capture of the Taku Forts on August 21st and the minor actions resulting in the surrender of Pekin (medal with clasps), and was nominated a Companion of the Bath. In 1868 he was the principal medical officer with the Abyssinian Expeditionary Force and was promoted to be Inspector-General of Hospitals. He was appointed an honorary physician to the Queen in December, 1873, and, having held the post for twenty-five years, was the senior of the honorary physicians to Her Majesty both of the Army Medical Department and of the Indian Military Forces. After filling the position of Surgeon-General at Aldershot he retired in April, 1876, and since 1888 has been in receipt of a distinguished service reward. The funeral took place on March 30th, a memorial service having been previously held at St. Philip's Church, Earl's-court-road.

THE NILE CAMPAIGN.

Last week the aspect of things looked as if an important battle between the Anglo-Egyptian troops and the Dervishes were imminent, but beyond a successful encounter of the Sirdar's cavalry with a small part of the enemy's force in the vicinity of the Atbara nothing occurred. Mahmud and Osman Digna clearly seem, however, to have been intimidated by what has taken place. The Dervish leader, Mahmud, is supposed to be entrenched in the bush at El Hilgi and his army have not left their entrenchments with the view of carrying out their threatened assault on the Anglo-Egyptian position. It is rumoured that the food-supplies of the Dervishes are fast diminishing and that they have some difficulty in procuring the requisite amount of water, but we suspect that in reality little is known of the Dervish forces or of the intentions of their leaders, Mahmud and Osman Digna. Sir Herbert Kitchener's force continues in excellent health and spirits. According to the latest official telegraphic information it is reported that Shendy (which was occupied by Mahmud's reserve force) has been surprised and captured by gunboats and Egyptian troops sent up the Nile; the Dervish losses were severe. The place was burned and the forts were destroyed, a large quantity of grain and ammunition was seized, and six hundred slaves were liberated. Mahmud's main force, which is believed to be very short of supplies, was still entrenched at El Hilgi and is held in check by the Sirdar's army, although it is some twenty miles distant. The present position speaks well for the generalship, which appears to have been extremely good, on the part of the British. Shendy is an important position on the east bank of the Nile and it has, or rather had, a big trade in salt, wool, carpets, ostrich feathers, and senna. The Soudanese population are thoroughly sick of the tyrannical and oppressive rule of the Dervishes.

APPOINTMENTS IN INDIA.

Surgeon-Major R. H. Firth and Surgeon-Major J. R. Forrest Army Medical Staff, have been selected for the appointments of district sanitary officers at Rawal Pindi and Lucknow respectively. The latter officer studied bacteriology and chemical pathology at King's College, London, at the Institut Pasteur, Paris, and at the University College, Bristol, and is the author of some original theses. Surgeon-Major Croly, Army Medical Staff, has been selected for the appointment of his personal staff-surgeon at army headquarters by His Excellency Lieutenant-General Sir Charles Nairne, K.C.B., when he assumes the office of Commander-in-Chief in India on the departure of Sir George White on March 30th. With his excellent constitution Sir George White is quickly recovering from the very serious accident which he lately met with.

ENTERIC FEVER AT LUCKNOW.

Enteric fever is stated to be prevalent at Lucknow at the present time. A young officer of the East Lancashire regiment who had only recently joined his regiment has died from that disease. The past medical history of Lucknow

shows that, like so many of our Indian stations, it is from time to time subject to outbreaks of enteric fever.

FIGHTING IN UGANDA.

According to despatches received at the Foreign Office there has been a good deal of fighting in Uganda. A force under Captain Harrison had attacked and captured a stockade held by the mutineers after their escape from Lubwas. On the British side there were 10 killed and 20 wounded. Among the latter were 2 officers.

As we have already announced would be the case, Inspector-General of Hospitals and Fleets Sir Henry F. Norbury, M.D., has been appointed Director-General of the Medical Department of the Navy, vice Sir James N. Dick, to date from April 1st.

Deputy-Surgeon-General H. Cayley will deliver a series of lectures on Tropical Medicine at the Middlesex Hospital Medical School during the forthcoming Summer Session.

Correspondence.

"Audi alteram partem."

"THE MIDWIVES REGISTRATION BILL."

To the Editors of THE LANCET.

SIRS,—The Midwives Bill (1898) has now been sufficiently long before the profession to give opportunity for criticism and it may be useful to make a few remarks on some of the principal objections that have already been formulated. As a member of the committee responsible for the drafting of the measure I am enabled to speak with full knowledge of the committee's views. It is matter for sincere congratulation that the need for legislation has now come to be almost universally admitted and that the object of the Bill as expressed in the preliminary memorandum has met with general approval and sympathy.

Objection has been raised to the title of the Bill and it has been suggested that a better title would be the Obstetric Nurses Bill or the Midwifery Nurses Bill. These titles were originally proposed by those who were strongly of opinion that no woman (not being a registered medical practitioner) should attend a case of confinement except under the personal supervision of a medical practitioner. It has since been acknowledged that this arrangement, however desirable, is impracticable. The reason for the introduction of the word "nurse" into the title (which, as signifying a limitation of responsibility, would have been perfectly appropriate) has therefore disappeared. It is necessary to remember that a midwife and a nurse exercise different functions, receive a different training, and hold a different relation to the medical practitioner. A nurse always means one who is subordinate to the medical man, who acts under his orders, and has no independent responsibility. A midwife is one who does not necessarily act under the personal supervision of a doctor (so long as the labour remains uncomplicated). She is individually responsible for the case under her charge. To call her a nurse, with whatever qualifying adjective, is to confound one who has independent charge with one who has not, but who receives her orders from a superior.

Midwife is the name already in use and is perfectly well understood by those for whose benefit the Bill is intended. Whatever her title may be the woman who exercises her calling under this Bill will be exercising the functions of a midwife, and a midwife only.[1] It is better, therefore, to give her her appropriate title and call her what she is. A further objection to the title of obstetric or midwifery nurse is that it suggests the monthly nurse rather than the midwife and would lead to endless confusion in consequence. Lastly, it is not uncommon to hear the complaint that the tendency of modern nurses is to take too much upon themselves. Any measure which confers upon a class of *nurses* the legal right to exercise independent functions must necessarily aggravate this tendency. On all these grounds it is evident that the midwife and the nurse should in legislative matters be kept absolutely distinct.

[1] The functions of a midwife of course include a certain amount of attendance upon both mother and child during the lying-in period.

It has been stated as a still more important objection to the Bill that it does not preclude unregistered women from practising midwifery even for gain provided they do not call themselves midwives and so lead people to believe that they are trained and certificated women when they are not. In answer to this objection it may be said that the promoters of the Bill would willingly and of their own accord have inserted a clause prohibiting unregistered women from practising for gain, but that all their advisers who had had any experience of Parliamentary procedure assured them that the House of Commons as at present constituted would not listen for a moment to any such suggestion. It was therefore thought impolitic and unwise to include a "practice" clause of *any* kind. It would have been dishonest to put it in for mere appearance' sake with the knowledge that it had not any chance of being agreed to, and it would have been foolish in the light of past experience to put it in with a genuine hope that it would become law. We can never persuade Parliament to make it illegal for women to practise as midwives, for gain or otherwise, any more than we can persuade it to render it illegal for the village blacksmith, for gain or otherwise, to set the broken bone or reduce the dislocation of a passing sportsman. What this Bill does is what the Medical Act does—viz., enable the public to distinguish between the qualified and the unqualified. As this is generally speaking equivalent to distinguishing between the competent and the incompetent it is by no means an unimportant matter. It would prevent the poor from being made to believe that they are engaging the services of a person who knows how to help them in their need when they are not.

A strong but much less widely spread objection has been raised to the present Bill on the ground that women already in *bonâ-fide* practice as midwives will be allowed to be registered. This, it is said, is to grant legal status and to give thereby undue importance to a large number of incompetent persons. The promoters of the Bill feel this difficulty as acutely as the objectors. But it is a difficulty that the practice of the Houses of Parliament has rendered inseparable from the introduction of all fresh systems of registration of this kind. It had to be faced and accepted in the case of the registration of medical practitioners, of dentists, and of veterinary surgeons. Fortunately it is a difficulty that will be temporary only, and even as it is there will be some convenience to the community in the proposed arrangement, for seeing that it is impossible the moment the Bill becomes law to replace all the untrained women now in practice by properly-trained midwives and that the gap must be filled it is well that the untrained women already in practice and who are to be allowed on that account to continue in practice should be placed upon the register, in order that their conduct and methods of practice may (for the first time) be under efficient control.

The mode of appointment of the Midwives' Board has been the subject of much criticism. It was the object of the promoters to place the appointment in the hands of influential and responsible bodies, and to ensure that whilst the various interests concerned should all be duly represented preponderance should be given to the representatives of the medical profession. With this view the Royal College of Physicians, the Royal College of Surgeons, and the Apothecaries' Company are each entrusted with the selection of three registered medical practitioners to serve on the board. To ensure the interests of the midwives themselves being fairly represented the Incorporated Midwives' Institute is also empowered to select three members, but it will be noted that these members are not to be selected from their own body but must be registered medical practitioners. There will thus be twelve registered medical practitioners on the board. The representation of the general public is provided for by giving the Lord President of the Council power to appoint the additional six members which make up the full complement of the board. These six members need not be members of the medical profession. It was hoped that this constitution would be generally acceptable, but the promoters are quite prepared to consider any proposals to alter it provided they do not interfere with the representative character of the board or tend to lessen its influence or efficiency. A counter proposal has been made according to which the appointments are *all* vested in the General Medical Council and the members are *all* to be registered medical practitioners. The various divisions of the kingdom are to be represented by providing that a given number shall be selected from the registered

medical practitioners resident in each division. This scheme is open to the objection that it makes no provision for the representation on the board of two of the interests concerned—namely, the midwives and the general public. The distribution of the members in definite and fixed proportions over the several divisions of the entire kingdom is also open to objection on two grounds. In the first place, it would unduly limit the choice in making the appointments; and, in the second place, it would make it difficult, if not impracticable, to bring the members so widely scattered over the country as frequently together as will be necessary, especially at first when the board will be busily occupied in drawing up rules and regulations and making the necessary arrangements for carrying out the provisions of the Act. The promoters of the Midwives Bill quite recognise the danger of centralisation, but they are of opinion that a still greater danger to the success of the scheme would be encountered if the members of the board were prevented by distance from regular attendance at its meetings.

The proposal in the draft bill of the Parliamentary Bills Committee of the British Medical Association to the effect that "no member of the board shall act as teacher, instructor, or examiner of" midwives would exclude from the board a number of those who have already under the voluntary system had a share in the training and examination of midwives and have thereby gained an experience of similar undertakings which would be very valuable in the deliberations of the newly constituted body. This proposal would have the further very undesirable effect of hampering the board in its selection of examiners, for it would prevent the appointment of a member of the board, however suitable he might be. The object of the clause is presumably to prevent the evils that might arise if teachers were allowed to examine their own pupils. These evils could, however, be entirely obviated without the insertion of any such clause by following the example of the Conjoint Board for England and of the Obstetrical Society of London, each of which bodies so arranges its examinations that no candidate is examined by his or her own teacher or by anyone on the staff of the hospital or institution at which the candidate was trained. With regard to the alleged danger of midwives who have been registered under this Act calling themselves licentiates in midwifery and writing the letters L.M. after their name, any proposal so to strengthen the wording of the Bill as to render this impossible would be willingly acceded to.

It has been objected to the Bill that no details are given as to the rules regarding training and examination, the limits within which the midwife is to be allowed to practise, the circumstances under which she shall insist on medical aid being summoned, or the precise nature and extent of the supervision to which she shall be subjected. These details are omitted from the Bill simply because they were thought unsuitable for discussion in Parliament. They are matters for the Midwives Board to determine. If it be asked what guarantee have we, then, that these important questions will be settled in a manner that will commend itself to the best judgment of the profession, the answer is: (1) that the Bill arranges for the appointment of a board that may be trusted, and (2) that all the rules and regulations drawn up by the board must, according to the provisions of the Bill, be submitted to the General Medical Council for approval. It is impossible within reasonable limits to reply to all the criticisms that have been offered. I have endeavoured to deal with the most important of them. The promoters of this measure desire to approach its discussion in a conciliatory spirit. They are not so foolish as to suppose because they have spent much time and thought upon the Bill that therefore it is perfect, and they are quite prepared to recommend those in Parliamentary charge of the measure to give the most careful consideration to any amendments that may be suggested with a view to their acceptance wherever it is feasible.

I am, Sirs, yours faithfully,

CHAS. J. CULLINGWORTH.

Manchester-square, W., March 26th, 1898.

P.S.—As I happen to hold office for the time being as President of the Obstetrical Society of London, I think it proper to add that I do not write the above in my official capacity. The Obstetrical Society of London is in no way responsible for this Bill and has had no opportunity as yet of expressing an opinion upon it.

To the Editors of THE LANCET.

SIRS,—I am directed by the Obstetrical Council of the Royal Academy of Medicine of Ireland to draw your attention to the following resolutions passed at a special meeting held in the Royal College of Physicians, March 25th, 1898. Proposed by Dr. More-Madden and seconded by Dr. Alfred Smith:—

That this committee entirely dissents from the principle of the proposed Bill for the registration of midwives, &c., as tending to create a new and inferior order of practitioners, hurtful to the interests of the profession and dangerous to the welfare of the public.

Proposed by Dr. A. J. Horne and seconded by Dr. Smith:—

That the Council would approve of any well-considered Bill framed with a view of improving the education of women as midwifery nurses

I am, Sirs, yours faithfully,

March 26th, 1898. JOHN H. GLENN, Sectional Secretary.

To the Editors of THE LANCET.

SIRS,—At the instigation of a small but active band of philanthropists (or are they cleverly disguised misogynists and neo-Malthusians?) the medical profession is preparing to consign the poorer parturient women of England to a class of female practitioners who are to be endowed with the privilege of being exempt from the trouble and cost of the prolonged course of study and training in anatomy, medicine, and surgery prescribed for *men* who may wish to practise the obstetric art. This concession, though tardy, is commendable, inasmuch as it manifests a reasonable endeavour to solve the great sex problem and denotes a becoming submission to the spirit of the age. Moreover, unlike most compromises, it is without alloy. The safety of every poor woman during the puerperal state will be adequately ensured by the circumstance that the midwife who attends her may be officially registered and could not otherwise *call* herself midwife. Should this amount of protection be insufficient our thoughtful legislators will provide the additional safeguard that the registered midwife shall arrange that all the "labours" she is called to attend shall be "natural" throughout all their stages and free from every kind of incidental complication.

This proposal to provide registered midwives for poor women who do not employ the services of persons legally qualified to practise medicine is so full of potency and promise that I venture to plead for an immediate extension of the generous principle upon which it is based. There are thousands of persons in this country who "are in the habit of" consulting the chemist and druggist, or his assistants in illness. It is therefore desirable, in the phraseology of one of the Midwives Registration Bills, that these persons should be able "to distinguish between those druggists and their assistants who have been trained and have given evidence of being competent to treat medical diseases and to perform the operations of minor surgery, and those who are not." A "Prescribing Druggists' Registration Act" would exactly meet this want and would also furnish guidance and encouragement to many a thrifty sufferer. Above all, it would remove the odious stigma of illicit practice from an enterprising body of men against whom, as compared with the midwife, the worst that can be said is that they have given some evidence of general education and scientific training.

In anticipation of a possible criticism that parturition is an ordinary physiological process and does not need any knowledge of anatomy, medicine, or surgery for its supervision, while even minor ailments cannot be so regarded, I would remind my critics that the prescribing druggist could generally rely upon the friendly intervention of *vis medicatrix naturæ* and that self-interest, to say nothing of humanity, would soon teach him not to thwart too rudely its kindly operation.

When this small instalment of equity and justice has been obtained we shall be better able to press for a full measure of civil and economic freedom for those hosts of our fellow-workers, the corn-cutters, the bone-setters, the trichologists, and the herbalists, who, while not exactly hampered by legal restrictions, have not as yet received from the State that amount of favour and encouragement to which they are entitled considering the number of persons

who "are in the habit of employing" them (*vide* Midwives Registration Bill).

I am, Sirs, yours faithfully,

March 26th, 1898. J. T.

THE DRAINAGE OF BOMBAY.

To the Editors of THE LANCET.

SIRS,—I am much obliged for the publicity you have given in THE LANCET of Feb. 19th to my report on the sanitation of Bandora, as it will help to make known to your English readers how very different are the fundamental conditions which distinguish sanitary work here from that in England. I regret, however, that my proposals do not commend themselves to your reviewer, who seems to have had no Indian experience. He writes as I would have written in good faith twelve years ago on arriving in the tropics, before I learned to know India, its climate, people, and financial resources for sanitary work. Nothing is more easy than with the aid of a text-book or two to prepare an ideal scheme of sanitation for an ideal people with unlimited money to spend, but to deal with municipalities whose majorities are obstinately averse to change and resolved to protect "property" is quite another business.

A successful sanitary project in India must be a safe and very carefully measured step in the right direction. If the step is too long it fails. The Shone system, for example, would be an ideal means of sewage removal in Bandora and if properly used would be of enormous benefit to the people. But nine-tenths of them are not fit to be entrusted with water-closets in their houses. The other tenth is so widely dispersed that the cost of pipes would be prohibitive. In other words, money would not be raised because the members of the municipal body are not sufficiently educated and earnest enough to be relied on. For such people and such communities projects "far from perfection," but most carefully studied, have the only chance of success.

I am, Sirs, yours faithfully,

Bombay, March 12th, 1898. JOHN WALLACE, C.E.

"THE LATE MR. R. R. CHEYNE AND THE PRESERVATION OF VACCINE LYMPH."

To the Editors of THE LANCET.

SIRS,—I am glad to learn from Mr. R. Cheyne's letter in THE LANCET of March 26th that it is to a fellow countryman, rather than to Müller, that we owe the method of preserving vaccine lymph with glycerine, and I will take care to note the fact in any future reference to the subject. Mr. Cheyne, however, does not appear to be aware that the procedure to which Mr. Chaplin referred in introducing his Vaccination Bill consists in something more than the mere admixture of glycerine with vaccine lymph, which, of course, would constitute no new device. It is now known that vaccine lymph, and more particularly that obtained from the calf, is liable to contain large numbers of what I have termed "extraneous" microbes. These ordinarily tend to increase and multiply in lymph when stored in capillary tubes. About seven years ago in searching for a means of rendering vaccine lymph free from these microbes, none of which are essential to its proper action and some of which are liable to be harmful, I discovered that a sterilised 50 per cent. solution of chemically pure glycerine in distilled water was capable of exerting a remarkable germicidal action on these extraneous micro-organisms, and that when the resulting emulsion was kept at a low temperature and away from the light these were all killed out after an interval of about four weeks—a fact which can be proved by making plate cultivations with the lymph-and-glycerine emulsion from week to week. It is glycerinated calf lymph which has in this way been proved bacteriologically to be entirely free from extraneous microbes of all kinds, whether pathogenic or otherwise, while at the same time perfectly active as vaccine, which it is the intention of the Government to supply in any quantity that may be required. Of special importance also is the fact that if virulent cultures of pathogenic micro-organisms, such as those of erysipelas and tubercle, be experimentally added in considerable quantity to lymph glycerinated in this manner it is found that they are killed out *even more readily* than the non-pathogenic forms usually present, it being impossible to recover living cultures of these microbes after about three weeks' exposure to the action of glycerine.

It was not until the year 1868 that the classical researches of Chauveau and Burdon Sanderson proved that the virus of vaccinia was particulate, and it was subsequent to this date that any scientific study was made of the micro-organisms which occur in vaccine lymph. It is therefore obvious that, whatever may have been the reasons for the use of glycerine nearly fifty years ago, there could then have been no appreciation of its value as a germicide towards any extraneous microbes which might chance to be present in the lymph, although in the late Mr. R. R. Cheyne's mention of glycerine as an antiseptic there would seem to have been an element of prophecy. Moreover, as I pointed out in my evidence before the Royal Commission on Vaccination, glycerine fifty years ago was by no means the pure chemical product which it is to-day, and indeed it has been suggested that its use as an addition to vaccine lymph has in former days been occasionally productive of mischief. This may possibly account for the late Mr. Cheyne's suggestion not having been generally accepted at the time.

In conclusion the method which Mr. Chaplin is proposing to adopt, if of comparatively recent date, is at any rate not of foreign origin, although the German and other Governments have already done me the honour of adopting it.

I am, Sirs, yours faithfully,

March 28th, 1898. S. MONCKTON COPEMAN.

"THE EXPERT WITNESSES IN THE LAPORTE CASE."

MESSIEURS LES RÉDACTEURS EN CHEF,—

Je lis dans votre estimable journal du 19me. Mars, 1898, sous le titre "The Expert Witnesses in the Laporte Case," une note sur la séance de la Société de Médecine Légale de Paris du 14me. courant. Votre correspondant vous a induit en erreur, ainsi que vous pourrez vous en convaincre en lisant ma réponse publiée dans le *Bulletin Médical* et la *Gazette Hebdomadaire* du Dimanche 20me. Mars.

Je compte, Messieurs les Rédacteurs en chef, sur votre impartialité bien connue pour remettre les choses au point.

Veuillez agréer, Messieurs les Rédacteurs en chef, l'assurance de mes sentiments très distingués.

Paris, 22me. Mars, 1898. Dr. L. VARNIER.

Je vous adresse par ce même courrier les deux journaux en question.

*** Dr. Varnier points out in the columns of the *Bulletin Médical* of March 20th and the *Gazette Hebdomadaire de Médecine et de Chirurgie* of the same date that there were only three discrepancies between the official documents and the copy.

Copy.	*Official Document.*
Paroi.	Partie.
1500 grammes.	1550 grammes.
Le cervelet et le bulbe sont sains.	Le cervelet et le bulbe sont intacts.

The exact text of the resolution as published in the two journals above mentioned is as follows: "La Société de Médecine Légale avant pris connaissance, à propos d'une expertise récente, *des documents officiels* et les avoir rapprochés *des documents publiés* à l'appui des attaques dirigées par certains journaux scientifiques contre M. le Dr. Socquet, constate *que ces derniers documents ont été incomplètement et inexactement rapportés, ce qui était de nature à égarer l'opinion publique.*"—ED. L.

"BLACK-WATER" FEVER.

To the Editors of THE LANCET.

SIRS,—Mr. Kellett Smith's very interesting note on the above subject[1] raises several questions on which I should like to be allowed to say a few words. I have for years been pointing out the interesting relationships between this disease and paroxysmal hæmoglobinuria, splenic leucocythæmia chlorosis, and anæmia, and the connexion, most probably causative, between the whole of these diseases and an excess of uric acid in the blood. I have also mentioned the fact that quinine occasionally produces hæmoglobinuria

[1] THE LANCET, March 19th, 1898, p. 780.

and I should certainly agree with the observers quoted by Mr. Kellett Smith that large doses of this drug may produce, or at least powerfully aid in producing, "black water," as I have pointed out that about one-fifth of the ordinary acid sulphate of quinine is xanthin, which is physiologically and pathologically equivalent to uric acid, so that large doses may add very greatly to the quantity of this substance available for solution in the blood and thus bring about the destruction of red cells observed in men and animals. I may also perhaps be allowed to remind Mr. Kellett Smith and others who may be interested in these matters that my own blood (and I believe that of everyone) varies its quality from day to day, even from hour to hour, with the amount of uric acid passing through it into the urine.

I have written of "black water" in connexion with the points brought out by my former colleague Dr. Wheaton in a paper in the Transactions of the Pathological Society, vol. xlvi., and I shall not ask for space to consider other points on which I have written at length elsewhere. But with reference to Mr. Kellett Smith's closing paragraph I should like to make the practical suggestion that living on a diet which is free from uric acid and using salicylates between attacks to sweep out the uric acid accumulated in the spleen and elsewhere, as well as that introduced in the form of quinine, might very greatly reduce the amount of available uric acid and mitigate or prevent such troublesome symptoms and sequelæ as congestion of the liver and spleen, vomiting, diarrhœa, and other "bilious" troubles, and even the "black water" itself. And some of these points I have been able to demonstrate practically in the persons of members of the profession who have returned from various malarial countries and have taken the trouble to follow my suggestions.

I am, Sirs, yours faithfully,

Brook-street, W., March 28th, 1898. ALEXANDER HAIG.

CREASOTAL AND GUAIACOL CARBONATE: TWO SPECIFIC REMEDIES AGAINST TUBERCULOSIS.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Jan. 22nd, 1898, Dr. Chaumier has published an article on "Creasote and Some of its Derivatives." Dr. Chaumier recommends that creasotal be taken by teaspoonfuls and considers the use of the drug contra-indicated only in fever and diarrhœa. According to the experiences, however, which we have been made acquainted with by the publications of the University Clinics of Berlin, Vienna, and Munich these contra-indications do not exist; on the contrary, the action of creasotal and guaiacol carbonate is very favourable upon the fever of phthisical patients, this disappearing after a relatively short period of treatment with these drugs. The cause by which Dr. Chaumier was led to believe these drugs contra-indicated in fever probably lies in the fact that he employed larger doses than were necessary. It is neither necessary nor is it useful to take the creasotal by teaspoonfuls. The same remedial effects are obtained with the administration by drops, as introduced by Professor von Leyden of Berlin. These small doses, besides being less expensive, are also much better borne by all patients, whereas the strong doses as used by Dr. Chaumier cannot be borne by many patients.

The *Charité Annalen* (Berlin, 1897) recently contained an interesting report on the results obtained with creasotal (creasote carbonate) in the University Clinic of Professor von Leyden. The conclusions arrived at by the experiments made under the direction of the chief surgeons of this clinic show that the remedial effect of the drug is not a merely symptomatic, but a specific one. After the administration of creasote, which drug was formerly also used by Professor von Leyden, it has always been noticed that the appetite disappeared, the general health grew worse, and symptoms of intense disturbance of the stomach and intestines soon followed. The creasotal was free from these noxious by-effects. The following mode of administration was adopted. Each patient began with five drops three times daily, increasing the dose three drops every day until twenty-five drops were taken at a dose. At this they were kept for from one to four weeks—in some cases even for several months; then the dose was diminished in a similar ratio until only ten drops were taken thrice daily, and then eventually the ascending scale was begun again.

The results obtained in von Leyden's clinic are fully detailed in the above-mentioned *Charité Annalen*. Though the greater part of the treatment was carried out during the winter months, when the climatic influences were unfavourable, very good results were nevertheless obtained. The general condition of the patients was markedly improved; fever, night sweats, and all the bad symptoms disappeared entirely after six weeks of treatment; the appetite rapidly increased. Even in cases where the patients had taken creasote before with the effect of causing a complete loss of appetite, under creasotal the appetite increased from week to week. Very much the same thing can be said of the weight, in which up to 16 lb. were gained in three months. Upon the night sweats and the fever the action of creasotal was very favourable. Cough and expectoration gradually diminished and finally disappeared altogether. Wherever the treatment was continued for over six months a marked improvement of the local condition was noticed. The lungs in these cases were partly cured. In some cases the physical symptoms of phthisis disappeared entirely after a treatment of from six to eight months, so that a perfect cure was obtained and the lungs of these patients were perfectly healed and quite normal again. Considering that in these cases only 300 grammes of creasotal were required to obtain a perfect cure and that physicians can obtain from their druggists 1 oz. of creasotal at the average price of 2*s*., it will appear that the expenditure for the remedy, distributed over several months, is no drawback, and that also the poorest patients can afford to take part in the benefits of the drug.

In the report of Professor von Leyden's clinic the author concludes by saying: We think we are entitled to assume a specific action of creasotal. Reviewing our experiences we come to the opinion that any case of incipient or not too far advanced phthisis may be treated with creasotal with the expectation of a good result. Naturally a nourishing diet and general good hygiene must go hand in hand with it. And here is the chief advantage of creasotal over creasote, inasmuch as it improves the appetite and does not irritate the gastro-intestinal canal it permits us to enforce the proper dietetic treatment of the disease at the same time. Very much the same favourable views in regard to creasotal are expressed in the recently published reports of the university clinics of Vienna and Munich.[1] I believe these experiences prove that Dr. Chaumier's objection to the administration of creasotal in fever is deprived of foundation. As above mentioned the presence of fever is, perhaps, to be considered as a contra-indication for the enormous doses of creasotal which Dr. Chaumier employs, while on the other hand the small doses as recommended by Professor von Leyden effect the disappearance of the fever.

In THE LANCET of Aug. 8th, 1896, Dr. F. R. Walters expressed his opinion to the effect that creasotal is an excellent remedy against tuberculosis, but that it appears to be too expensive as compared with creasote. I believe also this opinion cannot be agreed with. Here in Germany at least the patient buys the creasote in form of creasotal considerably cheaper than creasote pills and capsules. It must be borne in mind that the creasotal is administered by drops in liquid form, whereas the creasote can rarely be taken in a pure state, but is dispensed in the form of mixtures or capsules. By this its cost is increased so much that creasote in the cheapest emulsion—viz., tinct. creasoti—costs more than twice as much as an equivalent quantity of creasote in the form of creasotal. In the form of capsules creasote is still more expensive. I believe in England there will be an analogous proportion. In consideration of this fact it appears also that from an economical point of view the creasotal treatment is to be preferred to the administration of creasote in tinctures or capsules, so that in every respect the balance is greatly in favour of the new method.

I am, Sirs, yours faithfully,

Radebeul, Germany. R. SEIFERT.

AN UNKNOWN LARVAL PARASITE.

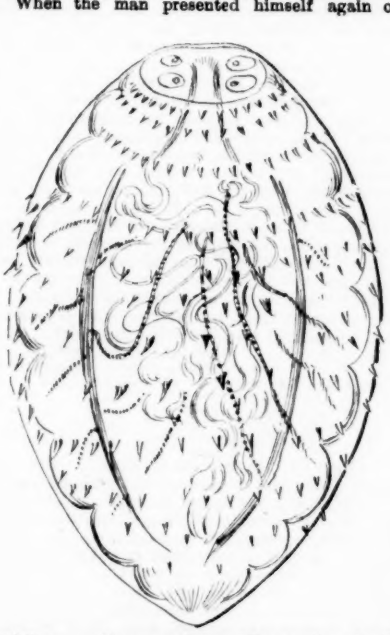
To the Editors of THE LANCET.

SIRS,—There has recently come under my notice a parasitic affection of the skin of which I can find no mention in text-books, and I should be glad if any of your readers who have

[1] Vide Professor Ziemssen's Annalen der Münchner Krankenhäuser.

special knowledge of tropical diseases would give me the benefit of their opinion on the matter.

Three men started on Jan. 1st to come into Bulawayo from Fort Filabusi, ninety-six miles distant. The journey occupied nine days and although the weather was mostly wet still there were fine days and on such occasions two of the men bathed on every opportunity but the third man abstained from so doing. During the journey they always slept on the open veld (field) at night but were well covered up, although at the Fort it was not unusual for them to sleep with very scanty clothing on. Of the three men who came in one presented himself to me on Jan. 22nd. He stated that on Jan. 20th, when undressed he noticed little red spots scattered over the sides of his chest and putting his hands round beneath his armpits he could feel other and larger pimples on his back. On the 21st the spots caused a great deal of irritation, with pain of a sawing nature, and on the 22nd I saw the patient for the first time. I found that he had scattered over both sides of his trunk a number of what at the time I considered to be boils, which very closely resembled the boils seen at the nape of the neck in many people. A few of these spots were also to be seen in the middle of the back, one on the buttock, and one on the thigh, but the limbs with this exception and the face were free. I told the man to bathe the boils with hot water and squeeze the contents out, and I ordered him some red oxide of mercury ointment. Soon after the patient had left the building one of the hospital orderlies brought me a small worm which he alleged he had squeezed out of one of these spots. When the man presented himself again on the



A semi-diagrammatic representation of the parasite under the microscope, ⅛ in. objective.

24th I admitted him and on the 25th I examined these spots closely. They were hard, deep-red in colour, about a quarter of an inch in diameter, and stood up well above the level of the skin; at the apex of each was a small scab. On removing this scab a very small drop of cloudy fluid escaped, which under the microscope showed pus corpuscles and a few red corpuscles but nothing more. Looking now at the spot I could see a small channel blocked by a small black speck, and on gently squeezing the projection from its base upwards out slid a worm. After evacuation of this worm the spot was swabbed with perchloride of mercury solution and it gave no further trouble. The worms varied in size, but on an average they were about a third of an inch long; they were of the colour of an ordinary silkworm; one extremity, the head, was narrow and had dark marks visible through its integuments, and the other extremity was blunt and rounded. The position of the worm in the man's skin was with the head surface-wards and the body lying in a channel extending obliquely down towards the subcutaneous tissue. The body of the worm was annulated from one end to the other and about as thick as a No. 3 gum elastic catheter. They were very energetic in their movements, crawling along like an earthworm without the aid of any feet. Within an hour of removal from the host I placed a worm on a sheet of paper and marking the position of his tail I stirred him up; he crawled exactly three-quarters of an inch in thirty seconds.

I next endeavoured to examine the worm under the microscope, but I was considerably handicapped by the want of proper appliances. However, I could make out a distinct head from which projected a sort of proboscis with a mouth surrounded by four small circles (? suckers) leading to a gullet which was bounded on each side by a dark streak, probably a blood-vessel; these dark streaks extended down until they became lost amongst coils of intestine. The coils of intestine occupied a central position and were flanked on each side throughout the length of the body by longitudinal vessels from which branches arose on both sides. But what struck one particularly were a great number of hooks scattered over the entire surface of the body. These hooks could be distinguished easily with 1 in. objective; close to the head they were arranged in two definite and closely approximated rings, further down was a second single ring, and ver the body generally they were irregularly scattered, finally near the tail the ringed arrangement again obtained although somewhat imperfectly. The hooks themselves had a brown colour and under ⅛ in. objective closely resembled ordinary rose thorns.

In considering the probable life-history of these worms I came to the conclusion that they were most likely a stage in a cycle and I determined to endeavour to see their further development. Accordingly I kept three healthy-looking specimens which I obtained on Jan. 25th and regularly every morning I placed them on fresh raw beef. As soon as they were so arranged they buried sometimes a half of and sometimes the entire body in the meat, and would remain quite quiet until removed for their next meal; on taking them out of the meat their bowels always acted freely. I examined some of their motion and with a ⅛ in. objective could distinguish nothing beyond finely-divided fat. For the first three or four days they grew rapidly, the largest attaining a length of about half an inch, but after this time they did not increase in size. I failed, however, to see the next stage in their life-history, for they all died, the last one about fourteen days after having been removed from the host. I made inquiries from mine prospectors and others and I gathered that these worms are common in dogs and Europeans in the Murchison Range of the Transvaal, Natal, and the Tuli district of Rhodesia. Native races do not seem to be affected. The general opinion was that a fly, of which I could get no reliable description, deposited worms or eggs on the skin. Some said that the "bite" of this fly was painful but others denied this. My patient had no recollection of having been bitten. Again, it is said that these flies infest water-courses, but here again evidence was contradictory. My patient certainly had bathed frequently.

The chief interest, medically, would appear to be in these cases to distinguish them from boils. I found that my method of squeezing out the worms intact and swabbing the wounds with corrosive sublimate solution gave instant relief without any further attention being necessary.

I am, Sirs, yours faithfully,

FRANK ARNOLD, M.B. Lond.,
Resident Surgeon, The Hospital, Bulawayo, Rhodesia.

Feb. 16th, 1898.

ENGLISH SANATORIUMS FOR THE TREATMENT OF PHTHISIS.

To the Editors of THE LANCET.

SIRS,—From many years' experience and practice in the Alpine climates I am convinced that such institutions as the above-named could be made to attain a large measure of success; and although the supreme advantage of mountain air would not be available in our somewhat dreary winter climate the nutritious and appetising English food would count for a great deal in the treatment of pulmonary phthisis.

It seems that of late years medical discipline has been regarded by many of those whose state of health would

gain by it as becoming rather irksome in some of the Alpine stations. In one famous hotel it is considered "bad form" to be an invalid and many are tempted to "bluff" the disease and join the festive throng. The sensible ones, however, obey their medical man and profit in consequence. There are many people now who visit the Alps for pleasure and it is rather difficult for their sick friends to refrain from participating in a life which is not only unsuited to them as invalids but taxing also to sounder constitutions. Although in most of the hotels the food placed on the table is all that can be desired it can be readily understood by English people that few establishments abroad can provide beef equal to that of the young bullocks fed on Devonshire herbage or mutton of the quality obtained from the Welsh hills, so in this respect any English sanatorium would be at an advantage; but in climatic conditions the British Isles can scarcely vie with the winter climate of the Alps either as to dryness, sunshine, or calmness of the atmosphere. On the other hand, everyone who has had continuous observation of phthisical patients is aware that strict supervision of the case is the all in all. This is scarcely so easy to attain now in every hotel of a leading Swiss health resort. The magnificent climate attracts those who come for the winter sports alone; and some hotel proprietors avow that they do not want invalids. Nevertheless, there are always plenty of the latter class located there or the hotels would not be filled as they are; but these people cheerfully and complacently consider themselves under "climatic treatment" and have a false sense of security engendered thereby. They enter with vigour into all amusements at hand—dancing, skating, tobogganing, walking, &c.—to the utmost extent of their powers. It is only the cautious *poitrinaire* who obtains full benefit of a prolonged absence from home. The ambiguous term "climatic treatment of consumption" is rather misleading and may warrant some invalids in assuming that all other treatment may be neglected to a great extent, or at any rate that the "climatic" remedy permits a maximum of enjoyment with a minimum of caution and no irksome restrictions of rest, quietude and patience anteceding the period when exercise of some kind can be prescribed with advantage.

There are assuredly many who would gladly avail themselves of some home sanatorium where, modestly speaking, two or three months' medical guidance would help to abate the feverishness and cardiac irritability so often accompanying an early deposit of tubercle in the lung; and perhaps train the patient in the way he should go afterwards, or put some flesh on him if emaciated preparatory to going abroad. Sanatoriums in England, especially during the summer months, ought to have as great a range of efficiency and utility as similar institutions established in Silesia and the Black Forest, where climate is certainly a secondary consideration, but medical supervision, diet, and hygiene of first value and importance. A not inconsiderable advantage is the mental effect produced on some patients entering an establishment devoted to one object and conducted under medical supervision which they know to be experienced in the treatment of their malady. They then appear to fall willingly into a determination to pursue the "cure" conscientiously and are saved all the officious meddling of busybodies or hotel acquaintances who, chiefly out of curiosity and want of occupation, inquire into the symptoms and offer remedies or irresponsible advice to disconcert the patient or exasperate the medical attendant.

In a well-ordered abode for receiving cases there need be no superfluous restraint or fussy, mysterious rules. For instance, one cannot see the necessity of enjoining patients to take their temperatures four times a day in the rectum as is the habit pursued in one German sanatorium. It seems to me that the daily life of a patient can be made interesting and pleasant enough without such inconvenient occupations.

I am, Sirs, yours faithfully,

Montreux, Feb. 25th, 1898. TUCKER WISE.

"HOSPITAL ABUSE."

To the Editors of THE LANCET.

SIRS,—As your Commissioner in his article on the above subject in THE LANCET of this week referred to me in connexion with the Bradford Children's Hospital, you will, perhaps, kindly allow me to correct some inaccuracies he has fallen into, as well as to point out some injustices he has, in my opinion, committed. In the first place, as I have always been an ardent advocate of hospital reform I particularly feel any imputation of implication with hospital abuse. I have at no time been "principal surgeon" to the institution. I was from the foundation of the hospital fifteen years ago till last year—when I was appointed honorary consulting medical officer—one of a staff of three honorary medical officers. I was also, no doubt, for the same fifteen years its honorary secretary, a not such an unusual occurrence in a new hospital, I think, as your Commissioner imagines. The Bradford Children's Hospital's constitution was founded upon that of the best similar institutions in existence, with the important qualification that special rules were introduced (notably the rule not requiring letters of recommendation) to prevent hospital abuse. It is in no manner or shape connected with the Eye and Ear Hospital, nor were its rules at all founded on those of that institution. The fact of its employing the same collector and secretary is purely accidental and in no way affects the management. The Bradford Children's Hospital is the only hospital in the town, and one of the few in the country, that requires, and indeed issues, no "letters of recommendation." It has always acted upon its rule that "sickness, poverty, and childhood" alone qualify for admission. Out of an expenditure of £2083 last year only £62 were received from patients.

The house committee do not see parents for the purpose of "bargaining what they are to pay for the treatment of their children." The rule was adopted some years ago at my suggestion with the sole object of checking hospital abuse. The practice is as follows: Cases are admitted into the hospital upon the authority of the medical officer for the week or of the resident medical officer acting for him. Upon admission a card is sent to the parent requesting his attendance at the next house committee, when his circumstances are inquired into and if he is found to be able to afford to treat the child at home the case is discharged. If not, but still in the opinion of the committee able to pay some trifle, the charitable nature of the institution is pointed out to him and he is invited to give what he is able towards the maintenance of his child, and sums of sixpence are much commoner than those of 10*s*. No one is urged to give and the donation is never either given or received as payment. A large proportion are registered as unable to contribute. Personally I have always been adverse to any payments from patients, but in a commercial community some concession must be made to the commercial instinct.

Hoping to have cleared our hospital from the strictures of your Commissioner, I am, Sirs, yours faithfully,

W. GILCHRIST BURNIE,
Hon. Consulting Medical Officer to the Bradford Children's Hospital.

Bradford, March 30th, 1898.

To the Editors of THE LANCET.

SIRS,—My attention has been drawn to the article on "Hospital Abuse" in your issue of March 26th and, so far as it is written with the desire to assist in the remedies of abuses, I myself, in common with all persons interested in hospital work, approve of its intention, but with others I could wish, were it possible, that your Commissioner were able with the admonition to point an effectual remedy for the abuses to which he refers. My purpose in writing to you is merely on behalf of the Bradford Children's Hospital to correct some more or less serious inaccuracies which have crept into the statement. In the first place, it is incorrect to state that "the greater number of the in-patients are made to contribute towards their maintenance in the hospital," and again that the parents have "in fact to bargain as to what they are to pay for the treatment of their children in the hospital," and again that in appearing before the hospital committee "they must expect to be severely questioned as to their ability to pay something if the sufferer is to be admitted as an in-patient." As a matter of fact, the parents of the children do not go before the hospital committee *until* the children are actually in-patients of the institution and far from "bargaining" with their guardians as to what they are to pay or from any compulsion being exercised towards them it is the invariable rule after inquiring into the circumstances of the family to leave the representatives absolutely and wholly free themselves to assess the amount which they think they can give to the institution and instead of the average amount being

as your article states, 2*s.* 6*d.* per week, I should say that 1*s.* 6*d.* would be a fair average, and certainly this estimate is justified on reference to our report, from which it will be seen that the whole of the payments for patients during the past year was £62 12*s.* Assuming the average to be, as I have stated, 1*s.* 6*d.* per week, the cost of a bed in the hospital averages some 15*s.* or 16*s.* weekly, and therefore in the case of these so-called paying patients there is a large margin of charity. The qualifications for entry to our hospital are poverty and sickness, but I apprehend that the poverty here referred to never was intended to mean the poverty of the pauper, who has a legal right to attendance in our workhouses, but is rather the poverty of above that class, and below the "affluence" which will admit of the payment for medical advice and for proper and skilled treatment at home, and that in dealing with these cases we are exercising to a full extent the charitable object of our institution. It may be that sometimes persons not answering to this description obtain the benefit of our charity, but I am satisfied that the course we adopt, and I have already shown, is not of an inquisitorial or galling character and is as good a safeguard as has hitherto been found to protect against abuses, as the system of recommendations, which it seems to me is the only other alternative, lends itself far more readily to impositions. From my experience the mere fact of taking payment from the parents of the patients does not induce them in any way to conclude that they are no longer in receipt of charity, or rather (to put it in a preferable manner) receiving benefits far in excess of that for which they pay; and I have never heard any complaints being made such as those referred to, but, on the other hand, we do receive from time to time from so-called paying and non-paying patients alike expressions of gratitude for the benefits received. I should not have thought it necessary to write in reply to your article (although, as you will see, I take exception to the general bearing of it), so far as regards the institution with which I am connected, had it not been for the charge of compulsion in respect of payments made against our committee, as it appears to me that this is of such a serious character that I ought to lose no time in removing the wrong impression which such a statement would be likely to cause, and in doing this I naturally take the opportunity of assuring you that whilst maintaining the efficiency of our hospital we anxiously and jealously watch over the interests of our subscribers and take every precaution possible that the benefits of our charity are not abused.

I am, Sirs, yours truly,

HERBERT J. JEFFERY,

Honorary Secretary, Bradford Children's Hospital.

Bradford, March 30th, 1898.

THE VACCINATION BILL.

To the Editors of THE LANCET.

SIRS,—I wish with your permission to draw attention to the following points in the Vaccination Bill. Some of the opposition to the Act as it now stands is, I am sure, due to the fact that parents who wish to have their children vaccinated gratuitously must perforce go to the public vaccinator and are thus deprived in many instances of the services of their usual medical attendant, who possesses their confidence. If the new Vaccination Bill comes into force as it now stands the public vaccinator having to pay domiciliary visits will become a sort of authorised "tout," calling upon the patients of other medical men and requesting permission to operate on them. He will thus in many instances deprive his *confrères* of a fee.

Having ventured on this criticism, may I suggest the following alterations? Any medical man should, I think, be allowed the usual fee from the sanitary authority for every successful case that is reported to it by him. The sanitary authority should periodically send to the public vaccinator a list of children in the district who have reached the age of twelve months, and as to whose vaccination they have had no return. It would *then* become the duty of that official to call on the defaulting parents and to offer his services. Parents who desire the services of the public vaccinator before the child reaches the age of twelve months should be at liberty to request his services.

I am, Sirs, yours faithfully,

March 28th, 1898. NOT A PUBLIC VACCINATOR.

NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

The Symptoms following Inoculation for Plague with M. Haffkine's Prophylactic Fluid.

As might be expected the symptoms following M. Haffkine's prophylactic inoculation vary considerably in different individuals. There are many symptoms, however, which are more or less common to all. It would be likely also that the chief symptoms would resemble in a very minor degree those of plague itself. There are, however, symptoms in plague which have no representatives, so to speak, among the symptoms following inoculation. The first indications of systemic affection occur within six hours after inoculation and consist of a sensation of chilliness, with headache, a rise of temperature and pulse, and a general feeling of malaise. There are no local symptoms at first beyond perhaps a slight red blush at the site of inoculation. The general symptoms increase and continue generally for two or three days. Vomiting sometimes occurs and occasionally diarrhœa. The temperature seldom rises beyond 103° F., more frequently it is below 102°. Weakness is sometimes very marked and the pulse is feeble. Headache is often very severe. Locally an inflammatory infiltration develops which becomes extremely tender. This extreme tenderness is as characteristic after inoculation as that of the enlarged glands in plague. No enlargement of the adjacent lymphatic glands occurs and only very occasionally does suppuration ensue at the site of inoculation. Desquamation of the cuticle over the inflamed area frequently follows. The local symptoms linger for several days after the patient has apparently recovered his usual health, which is most commonly in from four to eight days. The local and general symptoms are sometimes very slight, whilst at other times they are not only very severe but last perhaps eight days or more and are followed by considerable weakness.

The less frequent symptoms, perhaps depending upon personal idiosyncrasy, are very interesting. The minor complaints are joint pains without any swelling, lasting perhaps a fortnight. There is an erythematous rash more or less all over the body and sometimes a distinct urticaria is seen. No papules or pustules have been observed. A certain amount of anæmia and emaciation occurs in a few people, and some complain that they have never felt well since the inoculation. General weakness, loss of appetite, and constipation for some little time afterwards have been more frequently complained of, and a weakness in the lower extremities has been occasionally observed. A few people seem to develop mental excitement and a feeling of unrest; others become irritable in temper for a week or more. Confusion of ideas, a nasty clammy taste in the mouth, and a dry cough lasting for about a week are comparatively common. Nursing mothers have been inoculated without any disturbance to the child and pregnant women have not developed any untoward symptoms. The menstrual period seems sometimes to be anticipated, and if the flow has commenced at the time of inoculation it is subsequently increased in quantity. Sexual excitement has been mentioned as having occurred in a few cases.

It is not surprising on comparison with the effects of other toxin feverish attacks to find that certain ailments should be actually improved. Some asthmatic patients seem considerably relieved and even apparently cured for several months by this inoculation. Chronic eczematous conditions, especially in children, appear also to derive some benefit. Some apparently healthy people have even voluntarily stated that they have improved in their general health.

Such are the symptoms following what is practically a mild dose of the toxin developed by the artificial culture of the plague bacillus. The severer symptoms of plague itself are probably explained by the more frequent and larger dosage of the toxin into the general circulation and perhaps to the actual presence of the bacilli in certain parts. The enlargement of the lymphatic glands so characteristic of plague appears to be due to the presence of the bacillus, as it does not occur after inoculation. Blebs on different parts of the body as well as the cellulo-cutaneous infiltration followed by sloughing, both of which are common in plague, have no representative symptoms after inoculation. The so-called pulmonary variety of plague, attended by extensive lobular pneumonia and œdema, with the presence of bacilli in the sputum, is also unrepresented among the symptoms following

inoculation. The headache, the irritability, the mental confusion, the chilliness (which in plague itself is a frequently recurring symptom), the vomiting, the joint pains, the weakness, and the general symptoms of adynamic fever which follow inoculation are all prominent symptoms of the disease. The preparation of M. Haffkine's prophylactic fluid, as well as the statistics relating to plague inoculation, have been described elsewhere. It is sufficient to state that the dose injected for adults varies from 2·5 to 5 c.c., and for children 0·1 c.c. is calculated for each year of age. If a definite reaction follows one inoculation it is generally considered sufficient, otherwise a second dose is administered after a week's interval. Re-inoculation is almost certainly required the following year, but with a recurrence of the epidemic a shorter interval is imperative. It is unknown how long the protection lasts. As a second attack of plague has in several cases been known to occur within six months it would be probably safer for those who are more particularly exposed to the contagion to be inoculated every three months.

March 12th.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

A Case of Destitution.

AN inquest was held on March 21st by the city coroner on the body of George Kearns, who had committed suicide by hanging. The evidence given disclosed a pitiful story of destitution which was not relieved by the elaborate arrangements of our Poor-law system. Kearns suffered from chronic phthisis and for a long time had only been able to earn small sums by casual work. He had five children and a wife who had "done a bit of washing" when she could get it, which was two or three times a week. The most ever earned in a week was 6*s*. The rent was 4*s*. 6*d*., which was partly made up by a lodger who paid 2*s*. 6*d*. per week. Once or twice the husband earned sixpence or a shilling by dragging a hand-cart. The food of the family consisted of dry bread and tea. Kearns had once been in hospital, and his wife once sought parish relief—she tried to get milk for a sick baby. The widow in giving evidence said she told the relieving officer that they were starving, but only got some medicine, though the parish doctor gave her a note and told her to use his name. When asked by the coroner why they gave no relief she said, "They told me my husband ought to go and work on a farm, but that work was too heavy for him." Their suffering and destitution were not paraded but concealed, for a neighbour when asked by the coroner, "Had they enough to eat?" said she did not know, for Mrs. Kearns did not tell, but she did not think they had. She knew they had sold all their furniture for rent. This is one of those cases where the ordinary machinery of relief is apt to break down. Here was a delicate, ailing man, worn out with illness and privation, sensitive as to the stigma of pauperism, with a wife able only to make small earnings quite inadequate to enable them to feed themselves and their five children. All this may have told on the poor fellow's mind and so justified the verdict of "Suicide while insane." It is no doubt difficult to adapt the working of Poor-law relief so as to check the tricks of the professional pauper and of those whose poverty is the result of their own vices and at the same time to distinguish and relieve the victims of sheer misfortune who do their best to bear their woes in secret. Much must depend on the acuteness and tact of the relieving officer whose frequent contact with fraud and imposture tends to engender suspicion and is apt to blind him to the occurrence of such cases as this, which might be discovered by the exercise of a little sympathy and tact. Doubtful cases might be referred for investigation to the Manchester Provident Society or to some other of the many voluntary agencies which would be glad to help if there were any means of associating the two agencies. The case was discussed at the meeting of the Manchester board of guardians on March 23rd, and one of the guardians is reported as saying that Kearns was told by the relieving officer to appear before them on Sept. 20th last, which he failed to do. "If Kearns, or his wife, or a representative had appeared the case would have been duly attended to and the family relieved in the usual way." Of course they would, but it is unfortunate that "the usual way" should sometimes, as in this case, be followed by such distressing results. The chairman repudiated "any possible responsibility or blame on the part of the guardians," no doubt correctly, but the system is evidently to blame. A lady guardian said that "Mrs. Kearns is now in receipt of relief, and that all her house contained was some boxes and an old sofa."

The Corporation and the Mersey and Irwell Joint Committee.

An application was made on March 25th at the county police-court before Mr. Yates, Q.C., on behalf of the corporation of Manchester for a further extension of time to enable them to deal with the sewage. For the corporation it was represented by counsel that since September, 1896, "the corporation had made great strides towards meeting the requirements of the Joint Committee," for at that time a large quantity of sewage went into the river untreated, while now the whole of the sewage, "with a small exception," was being dealt with. The representative of the Joint Committee, on the other hand, said: "From our point of view the effluent is more than twice as bad as it was when the order was made." He was rather hard on the poor Rivers Committee, saying that they had not shown the least disposition to meet the Joint Committee and that with the exception of a few sparsely populated country districts Manchester was the only authority in the watershed without an efficient sewage scheme. He said, moreover, that "it was absurd for the Rivers Committee to attempt to thoroughly consider every system of sewage treatment." But as a population already exceeding half a million has to be provided for it is obviously desirable to avoid being rushed into adopting an ill-considered scheme. An extension of time till May 11th was granted.

Small-pox at Heywood.

A fatal case of small-pox occurred at Heywood recently. The patient, a young woman, was removed to the Infectious Diseases Hospital but she died in a few days. It is believed that the case was imported, but all attempts to trace its origin have failed.

Anthrax in Mid-Cheshire.

Two outbreaks of anthrax have recently occurred in Mid-Cheshire. One took place a few weeks ago on a large farm at Delamere, where eleven cows died from the disease. The farmer, a Mrs. Snelson, was fined for failing to notify the cases. The second outbreak was reported to the police on March 9th and occurred on the farm of Mr. C. Slater, Woodford Hall. A heifer died within three hours after it was seized with sickness, according to the report, and a bull died in the same way the previous week. At the proceedings at the Eddisbury petty sessions some remarkable facts came out with regard to the outbreak at Delamere. In October last a cow which appeared to be quite well one evening was found dead the next morning. It was skinned and the carcass left on the midden, where some pigs got to it, one of which was taken ill, killed by the shepherd, and buried. The hams, however, were taken away by a butcher and "disposed of." Another cow died soon after and at the end of January and in February several more were taken ill and died. Part of the carcass of the third cow was taken home by the shepherd and given to a dog and to four ferrets. All the ferrets died next day. On Feb. 13th a cow died and was buried but was disinterred by the direction of the police and examined by the veterinary inspector of the county and another veterinary surgeon, who found that this cow and another which they examined had unmistakeably died from anthrax. The farmer was fined £5 and special costs, which punishment does not seem too severe when we know that milk was sold in large quantities from this farm.

March 29th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Cattle Market Accidents in Newcastle-upon-Tyne.

THERE is still one important city in England, Newcastle-upon-Tyne, having in its very centre a large cattle market. Every week to reach this market hundreds of animals—sheep, pigs and cattle—are driven through thoroughfares crowded with passengers and vehicles for the purpose of being bought and sold, after which many of them are again

driven from the market to slaughter-houses in the town. It is said that the retention of the market in its present position is a great pecuniary advantage to the town. It has its drawbacks, however. In the Royal Infirmary, close to the market, at the present moment there lies a policeman suffering from a fractured skull the result of a charge from an infuriated bull on its way to the market. A few years ago a boy was in the same institution whom a bull on its way to the market in one of the principal streets of the city gored, tearing open his chest and exposing his heart. On another occasion a bull thrust his horn into the knee of a youth in the same street, with the result that the boy's thigh had to be amputated. These three victims were all in a humble position. Had they been prominent and leading citizens it is more than probable that the cattle market would not still exist in the centre of the city, containing as it does some 200,000 inhabitants and being in some respects one of the most stately and handsome in the country. There can be no doubt whatever that some day the cattle market will be moved and most people think the sooner this is done the better.

Subjects at the College of Medicine, Newcastle-upon-Tyne.

The supply of subjects is now an ample one. For this the College is mainly indebted to the energy and good management of the Professor of Anatomy. Dr. Howden himself personally interviewed the guardians at various workhouses and succeeded in persuading nearly all of them to put in force the provisions of the Anatomy Act with the result that the supply of subjects has now been put upon a permanently satisfactory basis and is sufficient for the requirements of the College.

Small-pox in the North.

The epidemic of small-pox at Middlesbrough is now fairly under control, though upwards of 400 patients are still being treated in hospital. There are 400 vacant beds at the sanatorium. Nearly 1200 cases have occurred in the town. With the exception of a case or two in various towns—Blyth, Newcastle, Sunderland, &c.—the disease has not extended much beyond the immediate neighbourhood of Middlesbrough.

The Chief Constable of Newcastle's Report for 1897.

Captain Nicholls, in his twenty-ninth annual report to the Newcastle-upon-Tyne Watch Committee, states that during the past year there were 294 fewer cases of drunkenness than during the previous year, but he is careful to point out that this, in his opinion, is no evidence of an abstinence from intoxicating drink, but merely an indication of the quality of the discipline exercised by superintendents of police. Newcastle, though wonderfully free from serious crime, has for long been said to be the most drunken of the large towns in England. If the Chief Constable be correct in his opinion—and there is very little doubt that he is—the city may not deserve its unenviable notoriety. Captain Nicholls is in despair as to the best method of dealing with juvenile offenders. 12 children under fifteen years of age were arrested for picking pockets during the year, 18 for house- and shop-breaking; 83 under sixteen years of age were arrested for stealing from shops, houses, and markets, equal to 29 per cent. of the total number of persons arrested for theft; 338 boys under sixteen years of age were arrested for gambling in the streets and 718 for disorderly conduct in the streets; 85 parents were prosecuted for ill-treating, neglecting, or exposing their children. The Chief Constable is doubtful as to the effect of night-shelters for children and would like to see "some of the money collected from the public for the protection of children spent in providing thoroughly suitable persons, both male and female, to supervise young children when trading in the streets and also to visit their homes."

March 30th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

The Army Medical New Departure.

MUCH interest has been aroused in medical circles and among the public by the request recently received by each of the corporate licensing bodies in Ireland, emanating from the Secretary of State for War. The Royal College of Surgeons in Ireland has been asked to nominate two surgeons for temporary duty during six months in the Army Medical Department. A similar request has been made to the other qualifying bodies. Dr. T. Myles addressed a letter to the *Irish Times* on March 29th in which he strongly advised young surgeons not to join the army until the promised warrant should appear. The President of the Royal College of Surgeons in Ireland also stated his views in a short communication to the same paper, in which he explained that the nominations were intended to be temporary only and not to affect the continuance of the present system of choice by examination. A meeting of the Council of the College to consider the question was held on March 29th.

The Sanitary Congress in Dublin.

The Sanitary Congress, under the auspices of the Royal Institute of Public Health, will be held in Dublin from August 18th to 23rd next. It will be under the patronage of the Lord-Lieutenant and will probably be very largely attended by Fellows and Members of the Royal Institute as well as by delegates from other sanitary societies. The Lord Mayor has intimated his intention of giving a ball at the Mansion House in honour of the visitors. There will be a banquet, garden-parties, excursions, and other attractions, including a temporary museum for the exhibition of novelties and appliances connected with sanitation. Amongst those who have consented to act as vice-presidents are the following:—Field-Marshal Lord Roberts, V.C., Lord Ashbourne, Sir George Duffey, Sir William Thomson, Sir Christopher Nixon, and Mr. Austin Meldon.

The late Mr. Leonard Lucas, R.N.

Mr. Leonard Lucas, whose lamented death was caused on the morning of March 25th, by a fall from the Irish mail train near Gaerwen, was a well-known citizen of Monkstown, co. Dublin, where he resided since his retirement from the navy as deputy-inspector-general. Mr. Lucas was a J.P. for the county of Meath and one of the directors of the Apothecaries' Hall of Ireland.

Ballynure Water-Supply.

Mr. Blair, dispensary medical officer, Ballynure, has written a strong report to the Larne Board of Guardians on the state of the water-supply of Ballynure. There are, he says, three available sources of public water-supply in the village, one only used by a few people and the other two contaminated. A committee of the guardians had recommended certain changes to be carried out as far back as last autumn. These have not been made and, as Mr. Blair pertinently adds, "The ratepaying portion of the community are beginning to inquire (not, I think, without reason) if the people of Ballynure village have got to pay for the next six years a special sanitary rate of 1*s.* in the £ for the privilege of drinking diluted sewage."

The Union Society, Queen's College, Belfast.

The report presented at the annual meeting of the Students' Union on March 24th was very satisfactory. Six daily, eight monthly, and sixteen weekly papers are taken in the reading room. The College Library Committee supply THE LANCET, *British Medical Journal*, *Nature*, *English Mechanic*, *Athenæum*, and the *Times*. The treasurer's statement for session 1896–97 shows a balance to credit of £42, which is very satisfactory, as this is independent of any interest from the capital fund, which is not yet available, as the interest will be devoted for a few years to paying off a debt incurred in the purchase of an annuity.

The Belfast Ophthalmic Hospital.

The annual meeting in connexion with this institution was held on March 28th. The total number of cases treated in the past year was 1927, and of these 1270 were cases of eye disease, 294 ear cases, and 255 cases of throat affection, while 108 patients were received into the wards of the hospital. During the year the entire sanitary arrangements have been examined and made perfect at a considerable expense. The financial statement was very satisfactory considering that £101 were spent in effecting improvements during the year.

Belfast Corporation (Hospitals) Bill.

This Bill, which has already passed through the House of Lords, came before the examiners of the House of Commons on March 28th for proof of compliance with the further standing orders. There was no opposition and the necessary formal proofs being given the examiners decided that the

orders had been duly complied with. The Bill will therefore be reported for second reading.

Litigation by a Medical Man.

At the Cork assizes just concluded Dr. Richard Barrett, medical officer of the Union Workhouse, Macroom, brought an action against Mr. Patrick C. Kelleher, a member of the Macroom board of guardians, for damages alleging that the defendant falsely and maliciously wrote and published certain words meaning that the plaintiff had been guilty of gross misconduct as medical officer in the workhouse, by reason of which plaintiff had been injured in his credit and reputation and in his practice as a medical man. From the evidence it appeared that Mr. Kelleher had written to the board of guardians a letter in which he charged Dr. Barrett with being a "liar" and with being guilty of "infamous conduct." In the course of the letter the suggestion was thrown out that Dr. Barrett had ordered needlessly a superior dietary for one of the patients. This Dr. Barrett denied. The case occupied part of two days in hearing and resulted in the jury awarding £50 damages to the plaintiff. Dr. Barrett also brought an action against Mr. Jeremiah Kelleher, a medical practitioner in Macroom. Dr. Barrett claimed damages in this case for a libel contained in a letter written to the Macroom board of guardians reflecting on the plaintiff's treatment of a hospital patient and amounting to an imputation of professional unskilfulness in his office as medical officer. Before the jury were sworn an agreement was come to by which it was arranged that Mr. Kelleher should withdraw the imputation contained in his letter and accept judgment for 1*s.* nominal damages and £48 costs.

March 29th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Potassium Sulphate and Cirrhosis.

AT the meeting of the Academy of Medicine held on March 22nd M. Richet discussed the various observations which had been communicated by M. Lancereaux confirming the part played by sulphate of potash in the production of cirrhosis. He showed that in the major part of his observations he had dealt with wines only slightly plastered. Wine is most often plastered in the district of the Midi, and it was, therefore, necessary to examine the frequency of cirrhosis in that district. It had been argued that a large number of French wines contained as much as from 4 to 6 grammes of potassium sulphate per litre, and this assertion had had a most disastrous result on the sale of French wines, especially in foreign countries, and on account of the sometimes unfair competition of German and Italian wines. In 1851 a regulation—which was re-enacted in 1880—forbade the plastering of wines to any extent above 2 grammes of potassium sulphate per litre. In 1891 the loi Griffe laid down anew the same proportions. Shortly afterwards, in 1892, M. Richet was sent into Spain to examine and report upon the plastering of Spanish wines. Of 55 samples examined 44 gave a result of less than 1 gramme of potassium sulphate per litre. Before this date, however, the plastering of Spanish wines was very heavy and they often contained as much as 6 grammes to the litre. In Paris, on the other hand, the amount of plastering is small. Even before the regulation of 1891 the mean amount of sulphate of potassium was only 2·50 grammes per litre and the figures have now fallen to 1·40 grammes. Before the regulation of 1891 the Municipal Laboratory found out of 6400 samples only 85 which contained 3 grammes of sulphate of potassium per litre. Since the passing of the law the figure has fallen until the highest amount is only 2·50 grammes per litre. There is therefore no reason to think that the intoxicating qualities of the wine are due to the sulphate of potassium. With regard to the question whether alcohol is responsible for the occurrence of cirrhosis, M. Richet recalled the important investigations of Hanot and his pupil Boix, who found that vinous intoxication is markedly increased by various acids, notably the fatty acids which are produced in the various dyspepsias so often caused by the abuse of wine. Wine acts on the liver by the alcohol which it contains as well as the acids, in addition to the acids produced by gastric fermentation. M. Lancereaux having noticed for many years that sufferers from cirrhosis were almost always wine-drinkers, sought to discover what was the special toxic element in wine. He thought that acids might be the reason, but made no experiments on this point. On the other hand he did make experiments with sulphate of potassium and found that by giving small daily doses to animals he could produce in them a cirrhotic condition exactly similar to that which is found in the cirrhosis of drunkards. M. Lancereaux is therefore, he thinks, correct in considering that sulphate of potassium is to blame in the production of the cirrhosis of drunkards.

Biological Differences between the Bacillus of Eberth and the Bacillus Coli.

At the meeting of the Hospital Medical Society held on March 19th, M. L. Toinot and M. Georges Brouardel said that there were very marked differential characteristics shown by cultures of these two micro-organisms in peptonised bouillon containing some arsenious acid. The bacillus of Eberth exhibits no growth in bouillons containing more than a centigramme of arsenious acid to the litre. It is equally impossible to train this organism, even if the observer begins with bouillons very much more feebly arsenical and goes on by slow degrees to those more strongly arsenical to grow the bacillus of Eberth in a bouillon which is of a higher arsenical strength than one centigramme in the litre. The bacillus coli, on the other hand, from the very first, from whatever source it may be derived, grows well in bouillon containing 1·5 gramme of arsenious acid per litre. Certain samples will even grow from the very first in bouillons containing 1·75 or even 2 grammes of arsenious acid to the litre, and this appears to show that this bacillus exists as various kinds, as opposed to the one kind of the bacillus of Eberth. The bacillus coli is, on the other hand, remarkable for the ease with which it can be trained to grow in an arsenious environment. It is possible by beginning with a bouillon of the arsenical strength of 1·5 grammes to the litre to gradually get it to grow in a medium containing arsenic to the strength of 3 grammes to the litre. Between an organism of this kind, which is so resistant to an enormous dose of arsenic, and the bacillus of Eberth, which is incapable of developing in the presence of the very small proportion of 1 centigramme of arsenic to the litre, there is undoubtedly a remarkable biological difference which may be added to those already noticed, such as the indol reaction and the lactose fermentation test, and which stands on the same footing. The same biological reaction in the presence of arsenious acid offers a method of differentiation from the group of the paracolon bacillus.

Reorganisation of the Army Medical Service.

The Minister of War has just laid before the Chamber the draft of a Bill to modify the composition of the military medical staff, including the military dispensers. According to this Bill the medical military staff, which is only just sufficient for its present duties, is to be increased from 1300 to 1457, but 50 *médecins stagiaires* of the school of Val de Grâce who are not at present included in this number will be for the future considered to have reached the rank of *médecin-aide-major* of the second class without taxpayers being put to any supplementary expense. This law will make it possible to give to regiments of artillery and engineers a third medical man whom they at present lack, and will place the officers of the health department from the point of view of promotion, under conditions more in accordance with the importance of their services. The number of military dispensers is reduced from 185 to 115, which will be enough to supply the military hospitals in time of peace and to meet the needs of mobilisation with the assistance of the dispensers of the reserve and the territorial army.

The Congress of the Obstetrical Society of France.

The Obstetrical Society of France will hold its sixth session in Paris from April 14th to the 16th. The two following subjects of discussion will be submitted: (1) on the Application of Forceps at the Brim in Flattened Pelves in Certain Positions of the Fœtus; and (2) the Treatment of Placenta Prævia.

March 28th.

*** In the last paragraph of the letter from our Paris Correspondent printed in our issue of March 19th the word "inexplicable" should have been *irreproachable*.—ED. L.

ROME.

(FROM OUR OWN CORRESPONDENT.)

The "Little White Slave."

ONCE and again THE LANCET has pleaded the cause of Italy's "infanti perduti," and the sad, sad theme has with fresh insistance pushed itself into prominence by the recent discussions in the Chamber of Deputies on the hardships of labour, especially of child-labour, throughout the kingdom. There is no exaggeration in the rubric "Little White Slave" which introduces this letter. It indicates a transaction completed under the eyes of the authorities—a transaction, according to one of our leading journals, the *Tribuna*, "silently negotiated and sometimes certified by the sign-manual of the notary as a true and proper contract." Every year the great seaport of Marseilles witnesses the disembarkation of thousands of Italian children, "raccolti a branchi" (gathered together in droves), whose destination is service under the "impresari," to whom they are sold for purposes of "industry" and of mendicancy more or less veiled—ay, even for purposes of yet darker import—in the great cities of Europe. On this pathetic subject there is no higher authority than the Marchese Paulucci de Calboli, attached to the Italian Embassy in Paris, who, at immense pains and expense, has accumulated the details which should long ago have fructified in the remedial legislation for which they all too eloquently and vainly appeal, details which describe the short-lived career not only of the "models," the shoeblacks, the chimney-sweeps, the "figuristes," and the factory hands of tender years, but of the street performers, the circus "phenomena," the dancing accompanists to the organ-grinder, the victims of other and unmentionable *métiers*, illegally expatriated from Italy year by year. Taken on shipboard, generally at Naples, and mainly from the landward towns of Caserta and the Basilicata, these children are landed at Marseilles after a "middle passage" in which the "padrone" (master), by way of ensuring them to uncomplaining obedience, feeds them only on bread and oranges. From Marseilles they are distributed to the four points of the compass, chiefly *viâ* Lyons and Rive-de-Gier, by arrangements in keeping with the "padrone's" anxiety to elude all collision with the authorities. By false certificates of birth the said "padrone" dodges the French law of 1892, which renders illegal all work exacted from children under thirteen years of age. Checkmated by these "certificates" the authorities are further baffled in their kindly intervention by the declarations (previously extorted from the children by their savage "padrone") that they are "quite happy" in their lives and content with their anticipated "employment," while the "padrone" invariably succeeds in veiling from philanthropic eyes the "antri" (dens) in which their "protégés" are housed. With all his efforts (aided by free outlay of money) the Marchese Paulucci, for instance, has never been able to see the "little white slaves" at feeding time, when such sustenance as is doled out to them is consumed "in comune" (in common), remote from all outside inspection. Thus it is that Italy's "infanti perduti" live and die—filthily and imperfectly clad, brutalised by hard conditions from which the short sleep of exhaustion is their only respite. Even those of them employed in "industrial" works—say, glass-blowers' factories—are turned out on Sundays and feast-days to beg and the few coppers they pick up from the public are impounded by the "padrone" in consideration of the "holiday" he has allowed them. All this time the astute "padrone" is quite at his ease as regards the law. He can produce not only passports but even, on occasion, the "contract" duly certified by the notary.—To the parents who have sold their flesh and blood he pays in advance the price agreed upon; the hardships or infamies to which the victims are subjected are rigorously kept dark; their cries stifled, and when they die "medical" evidence is forthcoming as to the "malady" from which they have succumbed. On the other hand, they are so terrorised by their "padroni" that they keep silence, tongue-tied in sheer dread of the punishment awaiting their disclosures. "Besides," adds the *Tribuna*, "if it were possible to imagine those livid arms raised in the gesture of accusation, to whom would they speak? by whom would they be understood in their south Italian *patois* which no outsider understands?" And now as to "remedial legislation." The Italian Chamber and Senate in 1873 unanimously voted a law against the employment of children in "mestieri ambulanti" (itinerant occupations); but as against the "furbo padrone" (the astute master) it has turned out a dead letter. Lately rendered more stringent it has made some impression on the traffic in little street vagabonds, but the large industrial factories have absorbed the victims rescued from the thoroughfares. According to the *Tribuna* the remedy must be sought not in invoking foreign Governments to aid in protecting the little Italian "import," but much nearer home. Ought not the Home authorities to be more vigilant? How about the police who so lightly concede passports to the "padrone" and his "troupe"? How about the harbour officials who look on at this yearly shipment of human blood? How about the "parroci" (curates), who instead of invoking the blessings of the Church on the little "emigrants," ought rather to enlighten and admonish the ignorant, avaricious parents as to the fate in store for their offspring? It is "the public opinion" of Italy which in this, as in so many other abuses, is so apathetic, so dormant. There is no movement from within, as in Great Britain with her "prevention of cruelty to children," as in the United States of America with their analogous organisation, to put a stop to the nefarious traffic. The paralysing word "pazienza"—that is, acquiescence in wrong till it somehow rights itself—checks all philanthropy, individual or aggregate, in the Italian kingdom; stifles in the birth all "sense of citizenship" or even all the humanitarian instincts out of which social reform springs; and forces the nation's well-wishers to find consolation in the roundabout, tardy, though ultimately effective processes of external example, stimulating internal initiative in bringing up Italian civilisation to a level with that of other less backward and more masculine races.

March 26th.

NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

"To Prevent Premature Burial."

A BILL is before the Legislature of New York designed to prevent premature interment. It provides that certain mortuaries shall be established in cities and towns of a certain population and prescribes how the mortuaries shall be constructed, regulating the temperature of such and requiring the supervision and inspection by a physician and other attendants. The physician who last attended the deceased or the coroner is required to furnish a certificate to the proper officials certifying that he has made the following tests:—1. That he has made two or more incisions in one or more of the arteries of the deceased and that no blood has flowed therefrom. 2. That he has held the hand of the deceased and the fingers thereof entirely open and the fingers closed together not more than five inches from the flame of a lighted candle, gas lamp, or electric jet, and that there has been no transparent appearance existing. 3. That he has held a mirror, glass, or crystal before the lips and nostrils of the deceased at a distance therefrom of not more than half an inch and that no moisture or sign of moisture has appeared on the said mirror, glass, or crystal. 4. That he has twice or more applied to the skin of the deceased a piece of iron or steel heated red hot for at least the space of ten seconds and that no blister charged with water has formed at the place where the said iron or steel was placed. 5 That he has examined the eyes of the deceased and has found a mucus covering them. The proper officials shall thereupon issue a permit for the removal of the body to the proper place, enjoining that it shall be held for seventy-two hours from the time of death and shall not be buried until a certificate has been granted by the parties in charge and a permit thereupon issued from the Board of Health or other proper officials. The certificates and permits are to be free and the Act shall not apply where death has occurred from small-pox, scarlet fever, diphtheria, Asiatic cholera, or personal injuries, or where decomposition shall be plainly apparent. Penalties are provided to meet violations of the Act.

Placarding Contagious Diseases.

The Board of Health of Philadelphia has issued a circular requiring that hereafter without exception all cases of cholera, small-pox (variola or varioloid), scarlet fever, typhus fever, yellow fever, relapsing fever, diphtheria,

diphtheritic croup, membranous croup, or leprosy, shall be placarded. This is to be done by placing a placard at the most conspicuous point of every entrance of the affected premises. Should the medical inspector be in doubt as to what is the "most conspicuous point" or as to the necessity of further placarding, isolation, or quarantine, he shall at once communicate with the chief medical inspector and follow his instructions.

A Remarkable Suit for Malpraxis.

A patient recently brought suit against his medical attendant for $5000 damages for malpraxis. The plaintiff averred that during May last he was suffering from acute pain in the right leg caused by ostitis of the tibia, that he employed the defendant to operate upon it and to remove the diseased portions of the bone, and that the defendant made a mistake and operated on the tibia of the left leg. These facts are true except as to the mistake. After the patient had been anæsthetised the surgeon found that both legs were similarly affected. He asked which one he was to operate upon and the patient's father replied that it was the left leg. He acted upon the decision of the father and operated upon the left tibia. The judge decided that the surgeon had a right to rely upon the decision of the father of the plaintiff in this matter and directed the jury to find a verdict for the defendant.

A Proposed National Society for the Study of Epilepsy.

The medical superintendent of the Craig Colony, Dr. W. P. Spratling, proposes to form a society for the study of epilepsy and he indicates the scope of its work as follows:—1. The scientific study of epilepsy. 2. The rational treatment of the disease. 3. The best methods of caring for dependent epileptics, including (*a*) the construction of proper homes based upon a study of the epileptic's needs as to classification and environment; (*b*) the study of the utilisation of the epileptic's labour for economic, scientific, and ethical reasons; and (*c*) the study of the best educational methods to be employed, including manual, industrial, intellectual, and moral forms and forces. In such a society science, philanthropy, and practical charity may well combine for a common purpose.

Physician's Right of Way.

An ordinance has been passed by the common council and is now in effect in Louisville regulating the rights of way and permits therefor. Section 1 concerns the right of way of ambulances over any other conveyances, while going for or carrying any sick or wounded. Section 2 concerns the wearing of physicians' badges and the right of way granted to such badges. Section 3 has to do with the issuing of permits to practise medicine. Section 4 requires the health officers to obtain a certified list of physicians licensed by the State Board of Health and practising in Louisville, &c., at railroad crossings, &c. Section 6 provides penalties for offences against the ordinance.

The Loomis Sanatarium Training School.

A training school for nurses has been opened at the Loomis Sanatarium at Liberty, New York. The opening class had thirteen members. Miss Helen Kimber, a graduate of the Bellevue training school, is the superintendent. The opening address was delivered by Dr. H. B. Loomis, Professor of Materia Medica in the University of New York. While these nurses will receive regular training as in the other schools special attention will be paid to instruction in the care of patients suffering from tuberculosis. This departure in the way of training is a new one and is justified by the ever-increasing demand for nurses for this class of patients. It is believed that such nurses can be constantly and advantageously employed in health resorts and as travelling companions for young people in the incipient stages of the disease. The course will be of two years' duration.

The Abuse of Medical Charity in New York.

The State Board of Charities reports that in the borough of Manhattan there are 66 dispensaries and that from 57 of these it received returns during the year 1897. They show that 1,043,428 patients in a population of 2,000,000 were treated, an average of 18,305 for each dispensary. Assuming that this would also be the average number for the nine or more dispensaries that did not report, the Board deduces that 1,208,173 persons really received gratuitous treatment during the year at the various dispensaries, and the dispensaries are by no means the only agencies of free medical treatment.

March 19th.

Obituary.

CHARLES WEST, M.D. BERLIN, F.R.C.P. LOND.

By the death of Dr. Charles West, which occurred in Paris on March 19th, at the age of eighty-two years, the medical profession loses one of its foremost representatives and one of a school of physicians now almost extinct.

Dr. West was born in 1816 and was the son of a man in a small business in London, who had married the daughter of a Major Johnson of the Durham Fencibles. Mr. West and his wife were Baptists. A few years after his marriage he felt he had a "call" to become a minister among the Baptists and he obtained the charge of a chapel at Chenies, in Bucks. To eke out a not very large income he began to take pupils and soon found himself master of a somewhat flourishing school which before the end of his life he transferred to Amersham. His elder son helped him in the school; his second son, Charles, born in London on Aug. 8th, 1816, had at an early age determined to be a medical man and so was apprenticed to the village apothecary. Here he obtained, what he often regretted in later years had become so rare among medical men, a thorough knowledge of the Pharmacopœia and of dispensing. One of the things which helped him not a little in his practice with children was his habit of making their medicines nice. He often said that the dying out of country surgeries and the enormous increase of the Pharmacopœia were the causes of a very serious ignorance of the real nature of their prescriptions among the profession, and he held that something ought to be done to correct the defect.

After some years at Amersham he went to Germany and, after studying at Bonn, obtained his medical degree at Berlin and at the same time a money prize, which was a great help to him, for an essay on the female pelvis, his name, according to the German custom, being announced with a flourish of trumpets. After studying in Paris for six months he came to London and bought a partnership in the City. This was not a success and the money put into it was wasted. After a time he became connected with St. Bartholomew's Hospital and with the Dispensary for Women and Children in the Waterloo-road. At the former he gave his "Lectures on the Diseases of Women" which founded his reputation. They were remarkable not only for their keen practical observation, but for the very beautiful English in which they were written and which he probably owed not a little to the circumstances of his early life, for amongst the Nonconformist bodies the traditions of the English of the seventeenth century, of Bunyan and Baxter, with its perfect and yet beautiful musical simplicity, has never been lost. These lectures, delivered in a singularly musical voice, were much appreciated and were certainly a new departure in medical literature. At the same time that he was working at St. Bartholomew's Hospital he was trying, but in vain, to induce the committee of the Dispensary for Women and Children to open a children's hospital and when he failed he persuaded, in January, 1850, eight other gentlemen, one of them Dr. Bence Jones, to issue an appeal in favour of establishing such an institution. Meetings were held and appeals issued, written mostly by himself, and after a year's silent work, spent by him partly in investigating children's hospitals abroad, on March 19th, 1851, at a public meeting at which Lord Shaftesbury, then Lord Ashley, was chairman, the Children's Hospital was founded. A fortnight afterwards what had once been the house of the Court physician Dr. Meade, 49, Great Ormond-street, was taken for the hospital. It was in most ways very well suited for the purpose. It had a splendid staircase and a dressing-room, painted with little shepherds and shepherdesses, which became the girls' ward, while behind there were a good garden and a very large room, originally Dr. Meade's museum and afterwards a ballroom, admirably suited for the out-patient department. Little by little the hospital grew in usefulness. Dr. West wrote its early reports and delivered lectures on children's diseases which added to his already great reputation. He also wrote a little book, most touching in its sympathetic wisdom, called "How to Nurse Sick Children," and published it for the benefit of the hospital. About 1869 he was made Foreign Associate of the Académie de Médecine, Paris.

In 1880, unable to stand the London fogs, which had just

hastened the death of his friend, E. M. Barry, the architect of the new Children's Hospital, he decided to leave London and practise in Nice during the winters. Though for about ten years more he continued in active service he never really recovered from a severe attack of influenza in 1891. But though his strength was gradually failing he never gave up his interest in the profession and only last year published what was in many respects an enlargement of his address at the opening of the St. Bartholomew's Medical Session in 1850 on "The Profession of Medicine: its Study and Practice, Duties and Rewards." Concerning this book we recently said that "the views of an expert who can look back through a long and honourable series of years are always worth reading. Dr. Charles West sets out many admirable views upon the profession of which he is so distinguished an ornament. The student and practitioner of every degree may learn something from this unpretentious little work. Dr. West is a little hard upon the Royal College of Physicians of London. He must be well aware that the Censor's Board is not a mere *caput mortuum* but does inquire into facts brought to its notice, though perhaps it might show more activity in initiating inquiry. He takes, perhaps, in the evening of his days a somewhat too cheerful view of the 'doctor's rewards.'"

Dr. West never claimed in any way to be a man of science and yet even on account of his methods and practices his books may be worth studying by the younger and more scientific generation. His success was due to the marvellous sympathy with suffering and power of inspiring the feeling that his whole mind and affectionate interests were his patients' for the time being. Children especially, with their wonderful faculty of recognising those who love them, went to him at once. The two bottom drawers of his consulting-room table were a treasure-house of marvellous toys, which assisted him to make his examination accurate and thorough. Though they are doubtless out of date nowadays no young practitioner could fail to be the better and wiser for reading his lectures.

Dr. West became M.D. of the University of Berlin in 1837, a Member of the Royal College of Physicians of London in 1842, and Fellow in 1848. In 1839 he became connected with the Infirmary for Children in the Waterloo-road and was subsequently physician to that institution, and at the Royal College of Physicians he held the office of Councillor in 1860, 1861, and 1869, Censor in 1863–65, and Senior Censor in 1870. He delivered the Croonian Lectures on Ulceration of the Os Uteri before the College in 1854, the Lumleian Lectures in 1871, and the Harveian Oration in 1874 on Harvey and His Times; he was the author of "Lectures on the Diseases of Infancy and Childhood," which reached its seventh edition in 1884 and has besides been translated into nearly every European language; "Lectures on Diseases of Women," a work of which the fourth edition was published in 1879, which has also been very widely translated; "Some Disorders of the Nervous System in Childhood," being the Lumleian Lecture for 1871; "The Mother's Manual of Children's Diseases," second edition, 1887; "Nice and its Climate" (from the French of Dr. Barèty), 1882; and "The Profession of Medicine: its Study and Practice, its Duties and Rewards," 1896. He was married twice, first to the daughter of Mr. N. B. Cartwright, of Stroud, Gloucestershire, by whom he had two children (the Rev. Dr. G. H. West, of Ascham School, Bournemouth, and Sister Margaret of the Community of the Resurrection, Grahamstown); and secondly to the daughter of Mr. Flon.

The following notes on the deceased physician are from the pen of Dr. Charles J. Hare:—

"I knew the late Dr. Charles West as I knew most other London physicians of some forty or fifty years ago and I think there was a mutual attraction and perhaps a community of views on medical subjects which made our meetings in after life agreeable and attractive, I believe, to each other. He early marked out the course of his future career by publishing his 'Lectures on Diseases of Infancy and Childhood,' which at once achieved a great medical popularity and divided the field of favour with the able work of Maunsell and Evanson on 'Diseases of Childhood,' which was then passing through its fourth edition. Dr. West's treatise reached a seventh edition. His very carefully written volume on 'Diseases of Women' (and all his works and lectures were written in most refined and classical English) still further enhanced his reputation and he was considered quite a leading authority on such subjects, but above all as regards children's complaints.

"Dr. West was a master of the English language and this he showed both in writing and in speaking by the marvellous flow of his well-chosen words, by his trenchant antitheses, and by the polish of his well-rounded sentences. I know not whether, Roman Catholic as he became, he had ever studied the charming letters of Ganganelli, the most liberal and the most kindly-hearted of the Popes, but his mode of expression and turn of phrases were very similar (especially when in making a formal well-considered speech he finished off with some telling sentence) to the mode in which Ganganelli habitually wrote. His Harveian Oration in 1874 affords many examples of what I refer to in his style of writing and perhaps I may quote from it a few lines in illustration of what I mean: 'We, with our narrow span of life, are naturally in a hurry for results. What comes not in our own time seems delayed indefinitely and we feel as little children do when they dig up the ground in their impatience to learn whether the seeds they planted have yet begun to sprout. It was thus once supposed that in the realm of nature effect followed cause in quick succession and it was little thought how slow is the action of those powers which have by their continuance upheaved mountains or have hollowed out deep seas. So, too, in the world of intellect the remote consequences of a discovery are long in disclosing themselves, impossible to be foreseen. No gift of second sight showed at the time to anyone the electric telegraph in Franklin's experiment made a hundred and twenty years ago. Harvey admired the skill of the artificer revealed by his researches as it had never been before; but of the practical result of those researches he saw little, and could never have imagined with what accuracy we can now, thanks to his labours, ascertain the nature and seat of disease in each of the four cavities of the heart itself, presage its course, and even where we cannot cure obtain at least an euthanasia for our patient and rob death of half its terrors by depriving it of more than half its suffering.'

"On two occasions especially Dr. West took a very decided part against the admission of women to the medical profession. The first of these was in 1878, when the Fellows of the Royal College of Physicians of London were summoned to consider whether they would grant their Licence to practise physic to women. The rejection of this motion was proposed by Sir George Burrows and was seconded by Dr. West, and the rejection was carried by 63 to 16 votes. On this occasion Dr. West made a very lucid and long speech which was afterwards, with many additions, published as a pamphlet under the title of 'Medical Women—a Statement and an Argument.' The matter was again brought before the College about four years ago and was again rejected, its non-acceptance being on this occasion proposed by Dr. West 'as the senior Fellow present.' His speech was a masterpiece of close argument and of beautiful diction and will probably always be remembered as such by all who heard it whether they concurred or not in his views. It would be out of place to enter here into any details of what he said on either occasion, but he strongly urged that when the proposed change 'implies the removal of old landmarks, the disintegration of old institutions, the gravely modifying the mental and moral characteristics of women and the relation of the sexes to each other, thus in many respects revolutionising society, it is surely worth while to consider the question of comparative loss and gain.' He showed that women generally did not wish for the admission of their own sex to medical examinations and that when they had the chance of consulting 'medical women,' infinitely the majority of them (in fact, *all* but an infinitely small minority) preferred, whatever might be the nature of their ailments, to be treated by men rather than by practitioners of their own sex. He showed by overwhelming evidence that the excuse for medical women in consequence of the prejudice of Eastern nations against males entering the zenanas was, for the most part, a false one; that in truth the medical man is privileged and has access to female patients, whether Mahomedan or Hindoo. One point more—as it was so cleverly and so naively taken up by Dr. West—may be selected from amongst the many which might be given; it is alleged, he says, 'as one of the great reasons for the practice of medicine by women that it would meet the urgent needs of those who were prevented by feelings of delicacy from seeking the advice of men in illness. But, with what some rudely term true female inconsistency, the very ladies who sympathise with this feeling with a sensitiveness which the coarser mind of the man cannot appreciate, yet do not shrink for a moment from the

joint medical education of the two sexes and believe that the youths and maidens can visit the deadhouse and dissecting-room in company with no weakening in either of that "hidden strength" which, as the poet tells us, "She that hath that is clad in complete steel."

Our brief story of Dr. West's life supplemented by Dr. Hare's notes will enable our readers to understand the nature of the man who is depicted. He was an earnest fighter, a searcher after truth, a lover of his fellow-man, and a devoted son of the medical profession. No one ever held the banner of our profession aloft more strenuously than he did and if sometimes he differed from others as to the method of carrying it no one could ever attribute to him an unworthy or selfish motive.

ARTHUR JEFFARES BARLOW, L.R.C.P. & S. IREL.

ARTHUR JEFFARES BARLOW, who died suddenly at his residence, 179, Hither-green-lane, Lewisham, on March 11th from cerebral hæmorrhage, was the eldest and only surviving son of the late Frederick Archer Barlow, solicitor, of 14, North Great George-street, Dublin. He studied medicine at Trinity College, Dublin, and graduated L.R.C.S. Irel. in 1884 and L.R.C.P. Irel. in 1889. He was articled pupil to Sir George Porter, Bart., and after qualifying held the position of house surgeon at Donegal Infirmary until he went to Hither Green in 1892. Mr. Barlow, who was only thirty-seven years of age, leaves a young widow to mourn her loss.

Medical News.

UNIVERSITY OF GLASGOW.—The following have passed the first professional examination for the degrees of Bachelor of Medicine (M.B.) and Bachelor of Surgery (Ch.B.) in the subjects indicated (B., Botany; Z., Zoology; P., Physics; C., Chemistry):—

William Kirkpatrick Anderson (Z., C.), William Armitage (C.), Thomas Ballantyne (C.), Alexander Grey Banks (Z., C.), Andrew Baxter (B., P.), Andrew Farm Bell (Z., C.), George Thomson Bogle (C.), Thomas Fraser Bowie (B., Z.), Robert Bruce (Z., P.), Robert Bryson (B., Z., P., C.), Ernest Cecil Burnett (B., C.), John Miller Hopkins Caldwell (B.), Angus Campbell (Z., P.), John James Young Campbell (B., P., C.), Robert David Campbell (C.), Daniel Lyall Carmichael (B., P.), Edward Seymour Chapman (C.), Walter Bartlett Chapman (Z., C.), George Herbert Clark (C.), Samuel Campbell Cowan (Z., C.), John Shedden Dale (B., C.), David William Davidson (B., P.), Alexander Dick (Z., C.), Mitchell Innes Dick (B., Z.), Hugh M'Millan Donaldson (B., Z.), William Dow (Z., P.), William Elder (B.), George Ferguson (B., C.), James Ferguson (Z., P.), William White George (B.), James Prankard Gilmour (Z., C.), John Miller Gordon (Z., P.), John Guthrie (Z., C.), John Andrew Hagerty (B., C.), David Haig (B., Z.), Saul Hyman Harris (Z., C.), Ronald Dingwall Hodge (Z., C.), John Monnette Huey (Z., C.), John Brown Dalzell Hunter (Z., C.), Matthew Hunter (B., P.), William Johnstone Isbister (C.), George Rutherford Jeffrey (Z., C.), William Fletcher Kay (Z.), Alexander Dingwall Kennedy (Z.), Andrew Miller Kerr (Z., C.), Daniel Ross Kilpatrick (B., Z.), Alexander King (C.), John Lambie (C.), Alexander Leggat (Z., C.), Stanley Everard Lewis (B., Z., P.), William Jamieson Logie (Z., P.), Thomas Walker Love (C.), Thomas Lovett (P., C.), Robert Harry Manson (B., Z.), Robert Menzies (Z., C.), Alexander John Mitchell (C.), Allan Dixon Mitchell (B., P., C.) Samuel Johnston Moore (B., P.), Coll Macdonald (P.), Alexander Armstrong Macfarlane (Z., C.), Alexander Macintyre (Z., C.), Alexander Maclean (B., Z.), Hugh Archibald M'Lean (C.), John Maclean (B.), Alexander M'Gaw M'Millan (B., Z.), George Williamson M'Millan (B., Z., P., C.), Dugald Henry Macphail (Z., C.), Andrew Alexander M'Whan (Z.), James Stuart Nicolson (Z., C.), John Dunn Nisbet (B.), Robert Orr (B., P.), John Paton (B.), Alexander M'Millan Pollock (B., Z., C.), James Nimmo Prentice (C.), Thomas Rankine (Z.), Andrew Reid Reid (Z., C.), John Mark Reid (Z., C.), John Walker Renton (P., C.), William Robertson (Blackwood) (Z.), Thomas Ritchie Rodger (P., C.), Norman Cumming Rogers (P., C.), Edward Henry Ross (P., C.), James Russell (Z.), John Samson (Z., C.), David Sandler (Z.), Robert Clemens James Schlomka (Z., C.), Frank Donald Scott (B., P.), Malcolm Bernard Gathorne Sinnette (P.), Robert Cassels Smith (B., C.), Donald Steel (C.), John Stewart (Z., C.), John Stewart, M.A. (Z.), John Barbour Stewart (Z., C.), John Allan Thom (Z., C.), William Wagner Turner (Z., C.), Robert Wallace (Z., C.), Thomas Irby Wallace (Z., C.), Alexander Brown Watt (B., P.), Peter Millar Waugh (P., C.), John Forrest Weston (P.), Archibald Simpson Wilson (B., C.), David Ashley Wilson (B.), James Wilson (B., C.), James Wyper (C.), and Watson Young (Z., C.). *Women*—Jane Campbell (P., C.), Minna Edgar (P., C.), Janet Bisland Higgins (B., Z.), Ethel MacLeod Lochhead (P., C.), Alice Moorhouse (P., C.), Emilia Anne Eliza M'Cosh (P., C.), Ethel Jane Mildred Pryce (P.), Martha Hunter Scott (P., C.), Ethel Maria Waldock (B., Z., P.), Edith Christine Wallace (P., C.).

The following have passed the second professional examination for the degrees of Bachelor of Medicine (M.B.) and Bachelor of Surgery (Ch.B.) in the subjects indicated (A., Anatomy; P., Physiology; M., Materia Medica and Therapeutics):—

George Arthur (A., P.), Gavin Barbour (A.), James Oastler Barclay (A., P.), Thomas Thompson Bathgate (A., P.), Alexander Binning (A., P.), Harry Egerton Brown (A., P.), William Herbert Brown (A., P.), John Douglas Brownlie (A., P.), William Adam Burns (P.), Thomas Carruthers, M.A. (M.), Edward Provan Cathcart (A., P.), John Thomson Clark (A.), Robert Clark (A., P.), David Maclure Cowan (M.), George Morris Crawford (M.), Charles Campbell Cuthbert, M.A. (A., P.), Archibald William Wallace Davidson (M.), James Davidson, M.A. (A., P.), James Austin Dickie (A., M.), Frank Lindsay Dickson (P.), John Pinkerton Duncan (A., P.), Leonard Findlay (A., P.), Comyn MacGregor Finlay (M.), Duncan Johnstone Fletcher (M.), John Forrest (A., P.), Alexander Fraser, M.A. (A., P.), Matthew William Fraser (A.), George Gardner (M.), John Gardner (M.), Gilbert Garrey (A.), James Gemmell (M.), Edward Gillespie (A., P.), Hyam Goodman, M.A. (P.); John Gracie (A.), James Macpherson Henry (A., P.), Isaac Mackay Huey (A., P.), Thomas Hamilton Jack (A., P.), Pierce Jones (M.), John Kennedy (P.), Norman Maclean Leys (A.), James Dunlop Lickley (A., P.), Donald M'Farlane Livingstone (A., P.), Alexander Logan (A., P.), David Dale Logan (M.), Robert Lunan (P.), Jacob Mains (A., P.), Andrew Mair (A., P.), Robert MacNab Marshall (A., P.), Allan Martin, M.A. (A., P.), William Archibald Mills (P.), Ebenezer Mitchell, M.A. (M.), Alexander Robert Moir (M.), Peter Moir (A., P.), Daniel Morrison (M.), James William M'Dougall (M.), Anderson Gray M'Kendrick (M.), George Steventon M'Kinnon (P.), James Mackinnon (A., P.), George Todd Maclean, M.A. (P., M.), William Johnstone Maclure (M.), Alfred Robert Maclurkin (M.), Burgess M'Phee (M.), Thomas Neill (M.), David Stewart Paterson (A., P.), Robert Paterson (A., P.), Thomas Stephens Picken (M.), William Barr Inglis Pollock (A., P., M.), Peter Mackenzie Reid (A.), Robert Rennie (P., M.), John Duncan Richmond (A., P.), David Russell (A., P.), David Shannon (A.), Edgar William Sharp (A., P., M.), John Steele Smith (A., P., M.), William Stewart Stalker (A.), Andrew Stewart (P.), Frederic Richardson Stewart, M.A. (P.); Robert Taylor (M.), Robert Bryers Thom (M.), Joseph Swinburne Townley (M.), James Cameron Turnbull (A., P.), Albert Ernest Wainwright (A., P.), George Henry Wildish (M.), Morgan Watkin Williams (P., M.), Alexander Wilson (M.), Thomas Watson Wilson (A., P.), William Webster Watt Wilson (P.), Hugh Patrick Wright (A.), John Young (Glasgow) (A., P.). *Women*: Gertrude Jane Campbell (A., P.), Lizzie Thomson Fraser (A., P., M.), Helen Mary Gordon (M.), Lila Stephenson Greig (A., P.), Mary Forbes Liston (A., P., M.), Jean Marion Farie Marshall (A., P., M.), Karen Margrethe Myhre (M.), Margaret Mitchell Ritchie (A., P.), Mary Ann Thompson Ritchings (M.), Christian Cleland Wood Smith (A., P., M.), Mabel Talbot (A., P.), Edythe Marjorie Stewart Walker (M.).

The following have passed the third professional examination for the degrees of Bachelor of Medicine (M.B.) and Bachelor of Surgery (Ch.B.) in the subject or subjects indicated (P., Pathology; M., Medical Jurisprudence and Public Health:—

James Napier Baxter (P., M.), James Freeborn Bennett (P.), William Broad (P., M.), Thomas Bullough Calland (M.), Alexander Henderson Cassells (P., M.), James Robert Chalmers (P.), William Crerar (P.), John Cullen (P., M.), Charles Caeven Cumming (P., M.), John Lithgow Davie (P., M.), David Curr Douglas (P.), James Drummond (P.), Binnie Dunlop (P., M.), Hugh Campbell Ferguson (P.), William Gibson (P.), James Garden Green (P.), Thomas Inglis (P., M.), Andrew Kerr (P.), Andrew Stewart Lang (M.), John Wilson Leitch, M.A. (M.), Ramsay Millar (P.), Hugh Miller (P.), Ernest Wardlaw Milne (P.), James Hogg Macdonald (P.), Peter M'Fadyen (P.), John M'Gilchrist (P.), Charles Forbes Maclean (P.), Norman Forbes MacLeod (P.), John M'Millan (P., M.), John Patton (P., M.), John Reid (Lanark) (P., M.), William Alexander Riddell (P.), Arthur Robin (P.), James Scott, M.A. (P.), David James Smith (P.), James Johnston Smith (P., M.), William Hart Steel, B.A. (M.), Peter Alexander Steven (P.), Francis Stevenson (M.), Alfred George Stewart (P.), Charles Pinkerton Thomson (P.), Wm. Brown Thomson (P.), Arthur Vost (P., M.), Alex. Laurie Watson, M.A. (P.), Alex. Simpson Wells, M.A. (P.), Robert Orr Whyte, M.A. (P.), William Wright (P.), and John Doctor Young (P., M.). *Women*: Jessie Downie Granger (P., M.), Jane Grant (P., M.), Mabel Hardie (P.), Jessie Sophia Beatrix Hunter (P., M.), Mary Longmire (P., M.), Ina Lochhead M'Neill (P., M.), Jean Effie Prowse (M.), Sara Maude Robertson (P., M.), Catherine Love Smith (P., M.), Gertrude Florence Fleetwood Taylor (P., M.), Sara Whiteford (M.), and Grace Lorrain Young (P., M.).

THE OLDHAM VIGILANCE COMMITTEE.—A meeting of the medical profession of Oldham and the neighbourhood was convened by this committee on Tuesday, March 23rd, to hear an address on Medical Reform from Mr. R. B. Anderson, as the representative of the Corporate and Medical Reform Committee, and to receive the report of the work of the Vigilance Committee in Oldham since January, 1896. The chair was taken by Dr. James Corns, convener of the Vigilance Committee, who, in introducing Mr. Anderson, congratulated the medical men of Oldham on their unanimity and solidarity of opinion. Mr. Anderson then spoke of the various evils that afflict the profession, the first and greatest of which he considered to be overcrowding, leading to discreditable competition, to hospital abuse, and medical aid societies. He also alluded to his own well-known case.

Resolutions were then passed approving of the course taken by the Corporate and Medical Reform Committee and thanking Mr. Anderson for his address.

THE LATE MR. AUGUSTIN PRICHARD.—The late Mr. A. Prichard bequeathed £300 to the committee of the Bristol Royal Infirmary to found a prize in anatomy.

THE BIRMINGHAM GENERAL HOSPITAL.—At the annual meeting of the governors of the Birmingham General Hospital, held in the board-room on March 16th, the Lord Mayor presiding, attention was drawn to the latest gift of Sir John Holder to the hospital, which is a beautiful medallion bust of the Queen in Carrara marble. The portrait is excellent. The bust, which was greatly admired by the governors, will be let into the wall in the out-patient department, between the tablets recording the laying of the foundation-stone of the hospital by the Duke of York, and the opening of the building by the Princess Christian on behalf of the Queen.

GIFTS TO DEWSBURY INFIRMARY.—At a special meeting of the board of management of the Dewsbury Infirmary recently held it was announced that Mr. A. H. Kirk of Dewsbury had promised to defray the cost of providing a children's ward of eight cots, together with the structural alterations necessary and the furnishing of the ward. The £750 which were collected in the Diamond Jubilee year with the object of building a children's ward will now be transferred to the maintenance fund. It was also announced at the same meeting that Mr. G. D. Cullingworth had promised to send a cheque for 50 guineas for the purpose of refurnishing the bedrooms of the nurses and servants.

THE NORTHALLERTON URBAN COUNCIL AND ITS MEDICAL OFFICER.—A rather curious *impasse* has been come to at Northallerton. The urban council of that town has advertised for a medical officer of health and only one application has been received—namely, from Mr. C. Tweedy, who has previously held the post. But there is, too, a vacancy upon the Council and Mr. Tweedy is also standing as a councillor. Now it is quite clear that under the Municipal Corporations Act of 1888, Section 12, sub-section 1, that if Mr. Tweedy is elected medical officer of health he is disqualified from being a councillor, for to quote the words of the Act, "A person shall be disqualified from being elected or from being a councillor if and while he ..... holds any office or place of profit other than that of mayor or sheriff in the gift or disposal of the council." The Northallerton council naturally object to being put to the expense of an extra election as they would be if Mr. Tweedy took the office of medical officer of health, then resigned, and then was a candidate for the councillorship, or *vice versa*. Mr. Tweedy appeared before the council and was interrogated as to his intentions and declared his intention of going to the poll for election as councillor. Eventually the consideration of the election of a medical officer was held over until the meeting of the council on April 7th. In the meantime the district is without a medical officer of health.

THE BRISTOL HOSPITAL FOR WOMEN AND CHILDREN.—Much friction arose some little time ago between the then house surgeon at the Bristol Hospital for Women and Children, Dr. W. L. Christie, and certain members of the staff of the hospital. The culmination was reached by the publication by Dr. Christie of a series of accusations against the staff charging them with neglect, cruelty and ignorance, while the committee were said to have burked inquiry as to the state of affairs and to have tampered with the records of the patients. To get at the truth of these serious matters a Commission, appointed by Lord Herschell and consisting of Mr. G. W. Askwith, Dr. W. S. Church, the Hon. A. Elliott, Mr. Timothy Holmes, and Mr. Victor Williamson, recently sat for five days, during three and a half days of which Dr. W. L. Christie was heard. He then asked for an adjournment for a fortnight, which the president refused, but said that Dr. Christie might apply by counsel at some future date for leave to cross-examine. This offer Dr. Christie refused. The president gave it as the decision of the Commission that Dr. Christie's charges were untrue and not justified. It is well that this "hospital scandal" has been so definitely cleared up. Dr. Christie seems to have formed quite a wrong idea of the position and duties of a house surgeon and we cannot but agree with one of the Commissioners, Mr. Williamson, who said that in his opinion it would have been better in view of the friction if the committee of the hospital had dispensed with the services of the house surgeon at an earlier date.

HUNTERIAN SOCIETY.—A meeting of this society was held at the London Institution on Wednesday, March 23rd, the President, Mr. Cotman, being in the chair.—Dr. Appleford read an interesting paper on Medical Practice in the West Indies. After describing the various medical appointments in the islands he mentioned that the diseases most commonly met with were anæmia ground-itch, jiggers, and yaws. Dirt-eating amounted to a disease, and the habit was chiefly practised by the children of the coolie population. The most favoured dirt was a light-coloured clay, but failing that any clay or soil was consumed. Yellow fever was very prevalent but rarely attacked those who had not resided in the islands for more than a year. The value of Trinidad and Barbadoes as health resorts was pointed out. Dr. Woods then read a paper on the Treatment of Drink Craving and Cardiac Affections by Suggestion. He considered that the morbid craving for alcohol was not thirst but a gastric sensation like hunger. The method of employing suggestion in the treatment of cases of "drink-hunger" was described and the results of 38 cases so treated were detailed. In the treatment of cardiac affections by suggestion much success had also been obtained, both in functional and organic diseases, though the former class of cases had yielded the best results. The method adopted and its rationale were fully discussed.

PRESENTATIONS TO MEDICAL MEN.—At a crowded meeting on Thursday, March 24th, at St. Bartholomew's Hospital a presentation of a testimonial and a picture was made to Mr. James Berry, F.R.C.S. Eng., on his resigning the surgical registrarship. Sir Thomas Smith, Dr. Church, Mr. Langton, Mr. Marsh, and many others officially associated with the hospital were present. The interest of the occasion was, however, largely owing to the fact that this was a spontaneous expression of feeling from the house surgeons and dressers who had worked under Mr. Berry. Dr. H. W. Lance, as senior house surgeon, took the chair and Dr. H. B. Meakin made the presentation. The wording of the address was as follows: "This testimonial, together with a painting of St. Bartholomew's the Great, was presented to James Berry, Esq., F.R.C.S., by the undersigned on the occasion of his resigning the surgical registrarship of the hospital, in token of the esteem in which he is held by those who have had the privilege of working under him, their admiration for the excellence of his work, and their sincere wishes for the success of his future career." The picture was painted by Miss Sprague and has since been exhibited at the Ridley Art Club.—On Tuesday, March 22nd, a presentation was made to Dr. A. J. Rice Oxley by the members of the Norwood and Streatham Literature, Science, and Art Society, on the occasion of his retiring from the post of honorary secretary to the society. The society was originally founded by the exertions of Dr. Rice Oxley thirteen years ago and during all that time he has been intimately connected with it and energetically engaged in working it up to a very high standard. The society is one of the most flourishing of its kind, comprises over 400 members, and has had among its lecturers some of the best known names in the world of literature, science, art, travel, and adventure. Dr. Rice Oxley has also been associated with the Norwood Technical Institute since its foundation and has done a great deal of work as chairman of the social side of that institution. The presentation, which took the form of a gold chronometer and a volume on the "Life and Work of Meissonnier," and a gold bracelet for Mrs. Rice Oxley, who had greatly assisted her husband in his secretarial duties, was made by Mr. C. E. Tritton, M.P. for Norwood, in a speech reviewing the life of the society and the work of Dr. Rice Oxley. Rev. John Watson ("Ian Maclaren"), the lecturer for the evening, also took occasion to thank Dr. Rice Oxley in the name of himself and other lecturers for the kindness they had always received at his hands.—On March 25th, at the town hall, Haverhill, on the occasion of the public presentation of the St. John Ambulance Association's certificates, &c., Mr. Thomas Herbert Goodman, M.R.C.S. Eng., L.S.A., honorary lecturer, was presented by the members of the senior and junior classes with a marble clock with inscribed plate.—On March 16th Mr. A. W. Anderson, M.B. Edin., of Dalbeattie, on concluding his lectures to the local ladies' ambulance class,

was presented with a silver cheese-dish and flower-pot by the members of the class.—On March 18th Mr. F. Kelly, M.B. Aberd., of Schoolhill, Aberdeen, at the annual supper of the members of the North British railway servants' ambulance class, was the recipient of a curio table in recognition of his services to the class.—On March 17th Mr. J. Cunningham, M.B. Glasg., of Stewarton, Ayrshire, was presented with a tea-set and tray by the Stewarton ambulance class as tokens of appreciation of his lectures on First Aid.—On the same day Mr. R. A. Farrar, M.D. Oxon., of Stamford, Lincolnshire, received at a meeting held in the Technical School, at the hands of the ladies attending his ambulance and nursing lectures, the gift of a leather kit-bag bearing his initials and an illuminated address as acknowledgments of his excellent instructions.—Mr. John Nightingale, M.B. Edin., was the recipient, on March 5th, from the members of the Horsforth St. John Ambulance class, of a handsome set of Shakepeare's works as an appreciation of his lectures to the class.—On March 10th, at Thornaby-on-Tees, on the distribution of certificates to the successful members of the Stockton branch of the St. John Ambulance Association, Mr. E. I. Cowen, L.R.C.P. Edin., M.R.C.S. Eng., of Thornaby, was presented with a pipe and case and a cigar holder in recognition of the instruction on first aid given by him to the branch.—On March 11th, Mr. Albert Ehrmann, L.R.C.P. Lond., M.R.C.S. Eng., of Bitterne, Southampton, was presented as a mark of esteem on the occasion of his leaving that town after a residence there of upwards of seven years by neighbours and friends in the district around with a purse of money, subscribed among others by many patients in humble circumstances. An address was at the same time to have been presented, but it was not quite completed.—Mr. P. E. Adams, L.R.C.P. Lond., M.R.C.S. Eng., who for some time has held the office of house surgeon at the Dorset County Hospital, has, on leaving that institution, been the recipient, as tokens of esteem, from the nursing staff, of an inkstand and a framed photograph of the hospital, given by Mr. Carter, the dispenser.—On the occasion of the distribution of certificates by the Mayor of Eccles to the successful candidates of the London and North-Western Railway ambulance class at the Locomotive Department, Patricroft, Mr. T. Leahy-Lynch, L.R.C.P., L.R.C.S. Edin., honorary lecturer to the class, was the recipient of a gold-mounted silk umbrella as a token of appreciation of his services.

DIPHTHERIA IN LONDON. — During the past month the amount of fatal diphtheria recorded in London has remained, for the most part, at a uniformly low figure. In the three later weeks of February the registered deaths from the disease were 45, 33, and 46 respectively; and in the week ended on March 5th the number was 38, being 4 less than the total for the corresponding week of the preceding month, and at the same time 1 in excess of the corrected decennial average for the particular week of March in the years 1888–97. All the 38 deaths were of young persons aged under twenty years, and only 3 were of infants. Hackney was credited with 5 and St. Pancras with 4 of the deaths. In the Outer Ring the deaths registered were numerous—namely, 22, as many as 9 being of persons in the West Ham sub-districts of Plaistow, Leyton, and Walthamstow, and 4 of persons in the Edmonton district. In the week ended March 12th, the registered deaths from diphtheria in London fell to 33, and were 3 below the corrected decennial average for the week. All were again of young persons aged under twenty-years, and only one was of an infant. Wandsworth district had the highest number of deaths—namely, 5, and Camberwell came next with 4 deaths. In the Outer Ring the registered deaths from diphtheria continued numerous, 19 being the total, of which again 9 belonged to West Ham sub-districts, Plaistow having 5 credited to it, while the Edmonton Union again had 4 recorded deaths. In the week ended on March 19th, the total number of deaths from diphtheria registered in London rose slightly to 36, but was nevertheless 3 below the corrected decennial average for the week, the eleventh of the registration year. All were of young persons under the age of twenty years, 6 being of infants and 24 of children under five years of age. Shoreditch and Poplar sanitary areas had each of them 5 deaths. A great fall was witnessed in registered deaths from the disease in the Outer Ring, only 10 being recorded, of which 4 occurred in the West Ham districts and 3 in Hendon district. Last week, however, there was a rise in the amount of fatal diphtheria, both in the county of London and in the Outer Ring. In London itself, the registered deaths numbered 53, a number identical with that in the last week of the past registration year, and higher than that of any subsequent week; a number too, that was 17 in excess of the corrected decennial average for the corresponding period of 1888–97. All the deaths were of persons aged under twenty years, 5 being of infants, and 36 of children under five years of age. Hackney was credited with 7 deaths, St. Pancras and Battersea each with 5 deaths, and Bethnal-green with 4 deaths. In the Outer Ring the 10 registered deaths of the preceding week gave place to 16, of which 7 were in the West Ham registration district.

ASSOCIATION OF ASYLUM WORKERS.—The annual meeting of the Association of Asylum Workers was held at 11, Chandos-street, Cavendish-square, on Monday, March 28th, when Sir James Crichton Browne, F.R.S., presided. The report showed that the number of ordinary members of the association at the end of 1897 was 2534. An employment bureau has been organised under the auspices of the association with a view of helping to raise the character of asylum service, and an appeal had been issued for help for the movement generally. Mrs. Creighton, in seconding the motion for the adoption of the report, said she wished every success to this association. Nursing in asylums was among the noblest kind of work, and everyone who undertook the important duties involved ought to feel they had received a call to perform them. On the motion of Mr. Mocatta the meeting approved the proposal to establish a home or homes of rest for asylum workers.

IRISH MEDICAL SCHOOLS' AND GRADUATES' ASSOCIATION.—At the annual general meeting of this association (which now numbers upwards of 700 members) held on St. Patrick's Day at the Café Monico, the President, Dr. E. D. Mapother, being in the chair, the following were declared after the ballot to be the members of council for the year 1898–99:—P. S. Abraham, M.D. Dub., chairman; Sir W. Thomson, President of the Royal College of Surgeons in Ireland (Dublin), President-elect; Professor James Cuming, M.D. R.U.I. (Belfast), R. Heath, M.D. R.U.I. (St. Leonards), H. H. Phillips-Carew, M.D. Dub. (Reading), and Professor Alex. Macalister, M.D. Dub., F.R.S. (Cambridge), Vice-Presidents; and Sir John Banks, K.C.B., M.D. Dub. (Dublin), J. P. H. Boileau, M.D. Dub., Brigade-Surgeon-Lieutenant-Colonel (Trowbridge), Campbell Boyd, L.R.C.P. & S. Irel., J. A. Browne, M.B. R.U.I., M. J. Bulger, M.D. Dub., G. Roe Carter, M.R.C.P. Irel., F. W. Davis, F.R.C.S. Irel., Inspector-General R.N., Sir James N. Dick, K.C.B., J. Donelan, M.B. R.U.I., R. Fegan, M.D. St. And., L.R.C.P. & S. Irel. (Blackheath), Sir B. Walter Foster, M.D. Erlang., C. H. Hartt, L.R.C.S. Irel., H. Macnaughton-Jones, M.D. R.U.I., W. H. Lloyd, M.D. St. And., Inspector-General R.N., Sir W. MacCormac, Bart., President of the Royal College of Surgeons of England, F. A. de T. Mouillot, M.D. Dub. (Harrogate), C. Dawson Nesbitt, M.D. Dub., R. T. A. O'Callaghan, F.R.C.S. Irel., J. Russell Ryan, M.D. Dub., E. Irwin Scott, M.D. St. And. (Brighton), T. Gilbart-Smith, M.D. Dub., Sir W. Stokes, M.D. Dub. (Dublin), F. J. A. Waring, M.D. Brux. (Brighton), and Gerald F. Yeo, M.D. Dub., F.R.S. (Totnes), with the honorary secretaries, James Stewart, B.A., F.R.C.P. Edin. (Clifton), and P. Johnston Freyer, M.A., M.Ch. R.U.I., Surgeon-Lieutenant-Colonel. Mr. R. Jocelyn Swan was re-elected honorary treasurer and the honorary auditors elected were H. G. Thompson, M.D. R.U.I. (Croydon), and W. E. St. Lawrence Finny, M.B. R.U.I. (Kingston).

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

The Lunacy Laws.

IN the House of Lords on Friday, March 25th, the Lord Chancellor introduced the Bill of the Government to amend the Lunacy Laws.

Sick Nursing in Ireland.

Mr. Gerald Balfour, Chief Secretary for Ireland, has made it known that he hopes to be able to introduce a Bill which among other things

will give power to boards of guardians in Ireland to subscribe to nursing institutions for the benefit of the sick poor in their districts.

HOUSE OF COMMONS.

THURSDAY, MARCH 24TH.

Precautions against Anthrax.

Sir M. White Ridley, in answer to Mr. Fortescue Flannery, said that the special rules have been served on all employers known to be engaged in the sorting of dangerous classes of wools and in all save four cases where the employers have still the right to object they have actually come into force.

Flogging in the Army.

Dr. Farquharson asked the Secretary of State for India if he could state to the House how often during the years from 1890 to 1898 corporal punishment had been inflicted for breaches of prison discipline in military prisons in India.—Lord George Hamilton replied that there had been 304 cases during the years from 1890 inclusive up to date in which corporal punishment had been inflicted in military prisons in India for breaches of prison discipline.

Asylum Accommodation in Ireland.

Mr. Gerald Balfour, replying to a question on the above subject by Mr. Hayden, said that the Belfast District Asylum was seriously overcrowded. The new asylum at Antrim was not yet ready for occupation, though it was approaching completion. The determination of the officers and staff of the new asylum was at present under consideration so that there might be no delay in the transfer of the patients when the asylum was completed. It was the case that there were 300 patients under care and treatment in the buildings erected at Portrane. The patients were under the charge of the resident assistant medical officer. There was a legal difficulty in the way of appointing a resident medical superintendent for the new asylum at Portrane.

County Infirmaries in Ireland.

Mr. Gerald Balfour, in answer to Mr. Jordan, said that if the Irish Local Government Bill passed with reasonable speed through committee the Government would probably bring forward a clause dealing with county infirmaries. He was not, however, in a position at this stage to state what form their proposals, if made, would take.

The London Water Supply.

Mr. Harry Samuel asked the President of the Local Government Board if he was aware that there had lately been a partial water famine in the East London district; and if so, what steps Her Majesty's Government intended taking in the matter.—Mr. Chaplin replied: I am not aware of any recent water famine in the East London district, but in consequence of the question of the hon. Member I have inquired of the company and they state in reply that the assumption of a partial water famine is without foundation, that no complaints have been received by them, that their storage reservoirs are all full, and that the supply to the consumers has been continuous.—Mr. Buxton asked the right hon. gentleman whether he would direct his inquiries to the persons who had complained.—Mr. Chaplin replied that the Local Government Board had received no complaints.

Prisons Bill.

At this sitting of the House Sir M. White Ridley made a statement with regard to the Prisons Bill. The primary object of the Bill, he said, was the creation of powers for applying differential treatment to the prison population as far as was consistent with the proper punishment of criminals and the maintenance of discipline and the protection of society. It provided for amalgamation of administration, so that in future the inspectors now available only for the work of the local prisons should have their duties extended to the work of the convict prisons, and it enabled the Secretary of State to frame rules for both local and convict prisons, an arrangement which would bring all our prison rules within the purview of Parliament. The Bill gave power for the classification of persons, and as regards hard labour it enabled regard to be had to the sex, age, industry, and conduct of the prisoner. Having explained various provisions for the classification of prisoners the Home Secretary said that the Bill gave power to release a prisoner on payment of a portion of the sum for the non-payment of which he had been committed. It also abolished punishment cells and made further provision against overcrowding and it extended the powers of visiting committees. Speaking of the Bill generally the right hon. gentleman said it was not to be regarded as a revolution in prison administration, but rather as a careful and cautious experiment.

FRIDAY, MARCH 25TH.

Foreign Milk.

Major Rasch asked the President of the Local Government Board whether his attention had been called to the prosecution of the Callow Park Milk Company by W. H. Temple, inspector under the Food and Drugs Act, in which Mr. Cassal, public analyst, stated that the milk, believed to be Dutch, contained forty grains of boric acid to the gallon, which was forbidden to be used in Holland and Germany except in milk specially reserved for exportation to England; and whether, considering the high standard required from the British farmer, he could check the importation of the adulterated article.—Mr. T. W. Russell, on behalf of Mr. Chaplin, said: I understand that the magistrate has not yet given his decision in the case referred to and under the circumstances it does not appear to me that I can make any statement in the matter.—Major Rasch: Is the hon. Member aware that tens of thousands of gallons of French milk are landed at Southampton every day, which is only made saleable by the presence of some antiseptic?—Mr. Russell: Reports to that effect come to the Local Government Board and I hope the hon. gentleman will repeat his question after the decision of the magistrate.

Vaccination in Scotland.

Mr. Crombie asked the Lord Advocate whether, in the event of the Vaccination Bill recently read the first time becoming law, the maximum period during which a child might remain unvaccinated would be longer in England than it was in Scotland; and whether he would introduce at an early date a Scotch Bill dealing with this subject.—The Lord Advocate replied: The hon. Member has correctly stated the possible effect of the Vaccination Bill to which he refers. The maximum period in Scotland, as he is no doubt aware, is six months, but with a power to the medical officer if the child be not in a fit state for vaccination to extend the period by means of a certificate to be in force and renewable thereafter for a further period of two months. Also, in insular, Highland and other districts certain provisions of the Act may be modified with the approval of the Lord Advocate. This system has hitherto worked successfully and there seems no necessity, so far as Scotland is concerned, for any legislation.

The Tuberculosis Commission.

Mr. Chaplin, in answer to Mr. Field, said that he had reason to believe that the Tuberculosis Commission would agree to their report at no distant date. As to the modification of prosecutions pending the issue of the report he had no authority under which he could give any instructions.—Dr. Farquharson asked the right hon. gentleman whether the Government would provide time for the discussion of this important question.—Mr. Chaplin replied that this was a matter for the Leader of the House.

Vaccination Prosecutions.

Captain Norton asked the President of the Local Government Board whether, in connexion with the proposed new Vaccination Act, it would be possible to stop prosecutions under the existing Act.—Mr. Chaplin replied that he had absolutely no power in connexion with the proposed Act or otherwise to direct that prosecutions under the existing Acts should cease.

Debate on the Army Medical Department: Concessions Announced.

When the House was in Committee of Supply on the Army Estimates a debate took place on the affairs of the Army Medical Department.

Dr. Farquharson referred to the absence of proper competition for the appointments of the Department and its cause. He did not think, he said that there was any chance of a return to the old regimental system, but this, he thought, medical men were entitled to demand, and that was that in this, as in other countries, there should be a Royal corps within which the medical officers should have distinctive rank.

Mr. Powell Williams, Financial Secretary to the War Office, said he was glad of this opportunity of announcing the views and intentions of the Department on this subject. There was nothing that the Secretary of State desired more than that there should be a complete understanding between the War Office and the medical profession and that the flow of candidates into the medical branch of the service should cease to be interrupted. The two claims on which greatest stress had been laid were that the compound title should be exchanged for a simple title representing rank in the army or in the corps and that the medical branch of the service should be united into one corps. His honourable friend had used the word "Royal." That title could only be given by special grant of Her Majesty, but he was happy to state that the Secretary of State was perfectly willing to give effect to the desire that the medical service should be united with the corps, and as soon as arrangements could be made the medical branch of the service would be formed into what would be called the Army Medical Corps. As to titles he would say that army titles were conferred upon medical men in the hope that those titles would meet the wishes of the profession. The Secretary of State saw no reason why a surgeon should be called a surgeon-major any more than a chaplain should be called a chaplain-major and he was perfectly willing to abolish the compound titles and to allow officers of the medical branch of the service to call themselves by the same titles that were applicable to officers of the other branches, so that in future according to the rank of the medical officer he would be called colonel, major, captain, or lieutenant of the Army Medical Corps. Hitherto some medical officers had enjoyed the honorary rank of major-general. That rank implied a general command and army medical men did not ask for a general command; and to give them rank above that of colonel in their corps might lead to some confusion. Upon this question the Secretary of State had not given a final decision, but certainly army medical men would be given rank up to that of colonel and would stand on the Army List in accordance with the rank and seniority their title gave. He was glad to hear that these concessions would be deemed satisfactory and he was sure that the Department would hail with satisfaction a renewal of the cordial understanding with the medical profession which formerly existed.

Sir William Priestley gave the House some statistics as to the number of candidates for the army medical service in recent years. These, he said, showed that there was discontent with the present conditions of the service and that the best men were not attracted to it. Medical officers claimed a status in the army, a substantive rank; they wished to be regarded as an integral part of the army and not as mere camp followers, as they had been called by some who were antagonistic to them. Hitherto, it might be said, they had scarcely been fairly treated by the combatant officers; they had been constantly exposed to humiliations and social disadvantages, which they very much resented. As a result of their not being part of the regiment, as they used to be, they had been left out of social functions and were not included in that caste which was, he believed, so exclusively maintained by combatant officers. They were no longer held to be brothers in arms. He was told that they had again and again been treated with contumely by combatant officers and he believed that one distinguished combatant officer had said that the medical officers had no more right to be called captains or colonels or to be included among the officers of the army than he had to be regarded as the Archbishop of Canterbury. The medical officers claimed to be received as gentlemen by gentlemen and to be treated with no less respect than other officers. They dressed wounds under fire and were exposed to all the dangers of combatant officers. Medical officers had to undergo a more stringent examination than combatant officers and many of them were University graduates. Yet he knew of two brothers who entered the army, one in the combatant branch and the other in the medical service, and the latter was refused admission to the officers' club and kept outside their social circle to which the former was admitted. The smooth working of the new arrangement must depend in a great measure on the wisdom and tact of the commanding officers. Without that the concessions made to the medical officers would create greater friction and make things worse than before.

Dr. Farquharson congratulated the Secretary of State on his pluck in holding out against the tactics of the military advisers of the War

PRINT IN BINDING

Office who had till now prevented this concession to medical officers and expressed hopefulness of the beneficial effect of the concession.

Captain Norton put forward the suggestion that the appointment of Director-General of the Army Medical Department as one of the prizes of the profession should be for five instead of for seven years.

Mr. Johnston and Mr. Hemphill spoke of the state of feeling among medical men in Ireland with regard to the service.

Colonel Blundell expressed the opinion that the relations between the medical and the combatant officers would not be satisfactory until every medical officer was attached to a particular regiment.

Captain Sinclair spoke in the same sense, though he should like very much to see the scheme now proposed succeed.

Mr. Brodrick, Under-Secretary of State for War, said the Department could not fail to be gratified by the manner of the reception accorded to their proposals. It was natural when one concession was made that others should be asked for, and he was not surprised therefore that an appeal had been made for a return to the regimental system. He would point out, however, that there was great objection to that on the ground of expense. In order to carry it out they would have to add sixty officers to the Medical Department, and he was quite sure that if the War Office were to set up an addition to the establishment which was not needed in order to preserve the army in health they should very soon find a motion made in the House of Commons to cut it down. The suggestion that the Director-General should no longer be appointed for seven but for five years was one which he should be pleased to bring before Lord Lansdowne for his consideration.

The House then proceeded to the consideration of other business.

MONDAY, MARCH 28TH.

Medical Officers of Irish Asylums.

Mr. Gerald Balfour, in reply to a question by Mr. William Redmond, said that he had received a memorial from medical superintendents and medical officers of district lunatic asylums in Ireland as to their position under the Local Government Bill, and he would give it his attention. He must not, however, be understood as giving any pledge that the representations of the memorialists would be acceded to.

TUESDAY, MARCH 29TH.

Oysters and Typhoid Fever.

Sir William Priestley asked the President of the Local Government Board whether, in view of the report concerning a fresh outbreak of typhoid fever from eating oysters, he proposed in the near future to take steps which would, as far as possible, prevent oysters being supplied from polluted sources and, while giving greater security to the public, would assist in rehabilitating the oyster industry.—Mr. Chaplin replied that the question of legislation on this subject was receiving his attention, but he could not at present make any more definite statement in the matter.

Appointments.

Successful Applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ANDERSON, T. L., M.B. Melb., has been appointed a Resident Medical Officer to the Freemantle Hospital, Western Australia.

BOASE, R. DAVEY, L.R.C.P. Lond., M.R.C.S., has been re-elected Medical Officer for the Penzance Port Sanitary Authority.

BOND, ELEANOR C., M.D. Brux., L.S.A., has been appointed House Surgeon to the Belgrave Hospital for Children, London, S.W.

BULLMORE, W. KING, M.D. St. And., M.R.C.S., L.S.A., has been re-appointed Medical Officer of Health for the Falmouth and Truro Port Sanitary Authority.

CHATER, J. S., M.B. Lond., M.R.C.S., L.R.C.P., has been appointed Senior House Surgeon to the Royal Surrey County Hospital, Guildford.

COOPER, H. W., M.D. Balt., U.S.A., has been appointed a Resident Medical Officer and Vaccinator at the Caroóar Hospital, New South Wales.

COX, J. W., M.B., Ch.M. Edin., has been appointed a Government Medical Officer and Vaccinator for the District of Nymagee, New South Wales, vice H. R. H. Peare.

DICK, J. A., M.D. Edin., has been re-appointed an Honorary Visiting Medical Officer to the Randwick Asylum, New South Wales.

DIXON, T. S., M.B., Ch.M. Edin., has been re-appointed an Honorary Consulting Physician to the Randwick Asylum, New South Wales.

EVANS, THOS., M.R.C.S., L.S.A. Lond., has been re-appointed an Honorary Consulting Surgeon to the Randwick Asylum, New South Wales.

FLASHMAN, J. F., M.B. Syd., has been appointed a Junior Medical Officer to the Hospital for the Insane, Callan Park, New South Wales.

FORBES, ARTHUR D., M.B. Aberd., has been appointed Medical Officer for the Seventh Sanitary District (Horsmonden) of the Tonbridge Union.

GREENWOOD, H. HAROLD, M.R.C.S., L.R.C.P., has been appointed Senior Assistant Medical Officer to the Derby County Asylum.

HISLOP, W., M.B. Univ., N.Z., has been appointed a Public Vaccinator for the districts of Waikonaite and Palmerston, New Zealand.

HOBLING, JOHN HENRY, L.S.A. Lond., has been appointed Medical Officer by the Bideford Rural District Council.

HUNT, J. S., L.R.C.P. Edin., M.R.C.S., has been appointed Manager of the Stock Department of Queensland.

HYDE, G. E., L.R.C.P. Lond., M.R.C.S., has been appointed an Honorary Consulting Surgeon to the Worcester Infirmary.

JAFFREY, FRANCIS, F.R.C.S. Eng., has been appointed Assistant Surgeon to the St. George's Hospital, London.

KIERNANDER, H. B., L.R.C.P., L.R.C.S. Edin., has been appointed Surgeon to the Emnd Bay Railway Company, Tasmania.

LAWSON, T. C., M.R.C.S., L.S.A., has been appointed Medical Officer for the Fourth Sanitary District of the Devizes Union, vice S. F. Holloway, resigned.

LLOYD, J. D., L.R.C.P. Edin., M.R.C.S., has been re-appointed Medical Officer of Health by the Chirk Rural District Council.

MCKENNA, J., M.D., Ch.M. Irel., has been appointed a Public Vaccinator for Shepperton, Victoria, Australia, vice J. W. Harbison, resigned.

MADDOX, W. G., L.R.C.P. Lond., M.R.C.S., has been appointed an Honorary Medical Officer to the Launceston Hospital, Tasmania.

MASON, JAMES, M.D. Brux., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., D.P.H. Camb., has been appointed a Public Vaccinator for the district of Otaki, New Zealand.

MILLARD, R. J., Jun., M.B., Ch.M. Syd., has been appointed a Senior Medical Officer for the Hospital for the Insane, Kenmore, New South Wales.

MYERS, CHARLES J., M.R.C.S., L.S.A., has been appointed Medical Officer of Health by the Louth Rural District Council, vice R. Domenichetti, resigned.

NEWMARCH, B. J., L.R.C.P. Lond., M.R.C.S., has been appointed an Honorary Secretary to the North Sydney Hospital, New South Wales.

NICHOLL, E. H. B., L.R.C.P., L.R.C.S. Edin., has been re-appointed Medical Officer to the Mudgee Hospital, New South Wales.

NISBET, W. B., M.B., Ch.M. Edin., has been appointed acting Health and Medical Officer for Townsville, Queensland.

PETERKIN, GEO., M.B., C.M. Edin., D.P.H., has been appointed Medical Officer of Health and Police Surgeon for Forfar.

PIKE, C. J., M.B., Ch.B. Lond., M.R.C.S., has been appointed an Honorary Medical Officer for the Launceston Hospital, Tasmania.

PITCHER, S. W., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Officer of Health for the Shire of Creswick, Victoria, Australia, vice W. Corry, resigned.

PRATT, F., M.R.C.S., L.S.A., has been appointed Medical Officer by the Northam District Council, vice E. Rouse, deceased.

PULLEN, F. B., L.R.C.P. Edin., L.F.P.S. Glasg., has been appointed a Surgeon for the Walsh District Hospital, Montalbion, Queensland.

PURDEY, J. M., M.B., Ch.B. Melb., has been appointed an Honorary Medical Officer for the Launceston Hospital, Tasmania.

ROBINSON, R. A. MCW., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed a Government Medical Officer and Vaccinator for the district of Coolamon, New South Wales.

STOCK, W. H., L.K.Q.C.P. Irel., L.F.P.S. Glasg., has been appointed acting Public Vaccinator for Clifton-hill, Victoria, Australia.

SUCKLING, C. W., M.D. Lond., M.R.C.P., M.R.C.S., has been appointed a Consulting Physician to the Queen's Hospital, Birmingham.

SWINDALE, JOHN ASTON, M.B., B.S. Durh., has been appointed House Surgeon to the Royal Lancaster Infirmary, Lancaster, vice W. H. Steele, resigned.

SYMES, R. H., L.K.Q.C.P. Irel., L.R.C.S., has been appointed Medical Officer for Hughenden, Queensland, vice J. S. Hunt, resigned.

VICKERS, CHARLES W., M.R.C.S., L.R.C.P. Edin., L.S.A., D.P.H. Lond., has been re-appointed Medical Officer of Health for Paignton, Devon.

VICKERS, C. W., L.R.C.P. Edin., M.R.C.S., D.P.H., has been re-appointed Medical Officer of Health by the Paignton Urban District Council.

WALSHAM, W. J., F.R.C.S., has been appointed Surgeon to St. Bartholomew's Hospital, London.

WHICHER, A. H., M.R.C.S., has been re-appointed Medical Officer of Health by the Midsomer Norton Urban District Council.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BIRMINGHAM CITY ASYLUM.—Clinical Assistant. Board, lodging, and washing provided.

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon. Salary £150 per annum, with an allowance of £30 per annum for cab-hire, and furnished rooms, fire, light, and attendance.

BURY INFIRMARY.—Junior House Surgeon. Salary £60 per annum, with board, residence, and attendance.

CORNWALL WORKS MEDICAL ASSOCIATION AND DISPENSARY, Smethwick, Birmingham.—Medical Officer. Salary £400 per annum, payable monthly, with certain midwifery fees payable by the patients.

COUNTY ASYLUM, Rainhill, near Liverpool.—Assistant Medical Officer, unmarried. Salary commencing at £100 per annum, with prospect of increase to £250, with furnished apartments, board, attendance, and washing.

COUNTY BOROUGH OF CROYDON.—Chemical and Analytical Adviser to the Beddington Irrigation Farm Committee. Salary £120 per annum, payable monthly, subject to a certain annual percentage deduction. Applications to the Town Clerk, Town Hall, Croydon.

DARENTH SCHOOLS FOR IMBECILE CHILDREN, near Dartford, Kent.—Assistant Medical Officer, unmarried. Salary £160, rising £20 annually to £200, with board, lodging, attendance, and washing, subject to statutory deduction. Applications to the Clerk to the Board, chief office of the Board, Norfolk House, Norfolk-street, Strand, London.

DERBY COUNTY ASYLUM.—Second Assistant Medical Officer, unmarried. Salary £100 per annum, rising to £120, with board, lodging, and washing. Applications to B. S. Currey, Esq., St. Michael's Churchyard, Derby.

EAST LONDON HOSPITAL FOR CHILDREN, Glamis-road, Shadwell, E.—Medical Officer for the Casualty Department, for six months. Salary at the rate of £100 per annum.

GATESHEAD DISPENSARY.—Assistant Medical Officer. Salary £120 per annum, increasing by annual addition of £10 to a maximum of £150 per annum without board or lodging.

GENERAL HOSPITAL, Nottingham.—House Surgeon for two years. Salary £100, rising £10 a year to £120.

HANTS COUNTY ASYLUM, Fareham.—Third Assistant Medical Officer, unmarried. Salary £100 per annum, increasing to £125 after twelve months' service, with furnished apartments, board, washing, and attendance.

LONDON TEMPERANCE HOSPITAL, Hampstead road, N.W.—Resident Medical Officer for one year. Salary 100 guineas per annum, with board, lodging, and washing.

METROPOLITAN ASYLUMS BOARD.—Assistant Medical Officer at the Fountain Fever Hospital, Tooting-grove, Lower Tooting, S.W., unmarried. Salary £160 the first year, £180 the second year, and £200 the third and subsequent years of service, with board, lodging, attendance, and washing, subject to statutory deduction. Applications to the Clerk to the Board, Chief Office, Norfolk-street, Strand, W.C.

METROPOLITAN HOSPITAL, Kings'and-road, N.E.—Assistant Physician and also House Physician. Salary of the latter at the rate of £40 a year, with board and residence.

MONKWEARMOUTH AND SOUTHWICK HOSPITAL, Sunderland.—House Surgeon, unmarried. Salary £80 per annum, with board, residence, and washing.

PARISH OF ST. GILES, Camberwell.—Assistant Medical Officer for the Workhouse at Gordon-road, Peckham. Salary £120 per annum, with furnished apartments outside the Workhouse, and an allowance of £1 1s. weekly in lieu of board and washing. Applications to the Clerk to the Guardians, 29, Peckham-road, S.E.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone-road, London, N.W.—Assistant Resident Medical Officer, for four months. Salary at the rate of £50 per annum, with board, residence, and washing.

ROYAL HANTS COUNTY HOSPITAL, Winchester.—Honorary Physician.

ST. BARTHOLOMEW'S HOSPITAL, London.—Assistant Surgeon.

SEAMEN'S HOSPITAL, Cronstadt.—Resident Medical Officer. Salary £180 per annum, free lodging, lights, fuel, and attendance. Bachelor or widower without children. Applications to the Chairman of Hospital Committee, British Consulate-General, St. Petersburg.

VICTORIA HOSPITAL, Burnley.—Resident Medical Officer. Salary £80, increasing by £10 per annum up to £100, with board, &c.

VICTORIA HOSPITAL, Folkestone.—House Surgeon. Salary £80 per annum, rising to £100, with board, residence, and washing.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Two Honorary Assistant Physicians.

YORK DISPENSARY.—Resident Medical Officer to visit and attend sick poor at their own homes, unmarried. Salary £150 a year, with furnished apartments, coals, and gas. Applications to W. Draper, Esq., De Grey House, York.

Births, Marriages, and Deaths.

BIRTHS.

HAYWOOD.—On Monday, March 28th, at Drayton House, Erdington, the wife of F. G. Haywood, L.R.C.P., L.R.C.S., of a daughter.

LONG.—On March 24th, at The Beeches, Greenodd, Ulverston, Lancs., the wife of Frank T. Long, M.R.C.S., L.R.C.P., of a son.

OGDEN.—On March 20th, at Sandyford-road, Newcastle-on-Tyne, the wife of Ogden Watson Ogden, M.D., of a daughter.

WILSON.—At Denham House, Goldhawk-road, London, W., on March 28th, the wife of James Wilson, M.D., of a son.

MARRIAGES.

HARRIS—FAWCKNER.—On March 24th, at Dock-street Church, Newport Mon., by Rev. Arthur Mursell, of London, uncle of the bridegroom, assisted by Rev. E. Walrond Skinner, of Newport, Frank Drew Harris, M.B. Lond., of Cowley-hill, St. Helens, Lancs., to Isabel Mary, elder daughter of J. Follett Fawckner, Esq., of Newport, Mon. No cards.

SCHOFIELD—MCMILLAN.—On March 24th, at St. Michael's, Chester-square, S.W., by the Rev. Canon Fleming, M.A., B.D., S. R. Schofield, M.B. Lond., of Queen's Club Gardens, West Kensington, son of S. K. Schofield, of Seafield, Waterloo, Lancashire, to Lily, only daughter of the late Rev. John McA. McMillan, M.A., LL.D.

TORNEY—DODD.—On March 23rd, at Christ Church, Surbiton-hill, by the Rev. Ralph H. Sneyd, M.A., cousin of the bridegroom, assisted by the Rev. H. J. Watney, George Parsons Torney, Medical Superintendent, Bracebridge Asylum, Lincoln, eldest son of the late Thomas Torney, Esq., M.D., of Dublin, to Mildred Florence Ethersey, fourth daughter of the late Captain A. I. Dodd, of Ditton-hill, Surbiton, and Moulmein, Burmah.

DEATHS.

GALTON.—On March 26th, 1898, at 128, Brixton-hill, S.W., Edmund Hooper Galton, F.R.C.S., aged 61 years.

GROSVENOR.—On Tuesday, March 29th, 1898, at his residence, Greville Lodge, Churchdown, Gloucestershire, rather suddenly, William Grosvenor, L.R.C.P., L.R.C.S., late of 9, Greville-place, Maida-vale, London, third son of the late William Grosvenor, of Alsager, Cheshire, aged 66 years.

HOARE.—On March 23rd, at Clifton House, Aston Manor, Birmingham, Reginald Ratcliff Hoare, F.R.C.S., aged 54.

MOYNAN.—On March 24th, at his residence, Woodstock-road, Redland, Bristol, William Arthur Moynan, M.D.

SHEPHERD.—On March 30th, at Myddelton-square, E.C., Surgeon-Lieutenant-Colonel William George Shepherd, M.D., F.R.C.S., late 1st Middlesex Rifle Volunteers, aged 83 years.

TROUP.—On March 23th, at Douro-place, Dover, Surgeon-Lieutenant-Colonel Robert William Troup, late Medical Staff, aged 58.

WATSON.—On March 28th, at Leonard-place, Kensington, John Watson, M.D., in his 84th year.

WHEATLEY.—On March 30th, at 79, King Henry's-road, N.W., Maria Wheatley, sister of the late Benjamin R. Wheatley, for many years Resident Librarian of the Royal Medical and Chirurgical Society, aged 75 years.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

EDITORIAL NOTICE.

It is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only, AND, WHEN ACCOMPANIED BY BLOCKS, IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICE.

THE INDEX TO THE LANCET.

THE Index to Vol. II. of 1897, which was completed with the issue of Dec. 25th, and the Title-page to the Volume were given in THE LANCET of Jan. 1st.

VOLUMES AND CASES.

VOLUMES for the second half of the year 1897 are now ready. Bound in cloth, gilt lettered, price 18*s.*, carriage extra.

Cases for binding the half-year's numbers are also ready. Cloth, gilt lettered, price 2*s.*, by post 2*s.* 3*d.*

To be obtained on application to the Manager, accompanied by remittance.

A POINT IN HOSPITAL ABUSE.

To the Editors of THE LANCET.

SIRS,—*Re* the advertisement "Facilities for Clinical Study," &c., in THE LANCET of March 26th. It has hitherto been customary for qualified practitioners to be allowed to occasionally attend the clinical instructions given at the various metropolitan hospitals. It would now appear by this advertisement that they will in future be excluded unless willing to pay a comparatively heavy fee, which amounts to the hospitals encouraging patients to apply at these institutions and then asking the practitioner to pay for the privilege of seeing the patients who should properly be his patients.

I am, Sirs, yours faithfully,

Grosvenor Club, March 28th, 1898. FREDERICK W. COLLINGWOOD.

THE ADVERTISING OPHTHALMIC SPECIALIST.

WE have received a circular emanating from the "London Ophthalmic Institute," accompanied by a little work by "our consulting specialist, one of the leading refractionists of the day." The refractionist's name is D. Shepperd and there is one statement in his book with which we are in most hearty accord—namely, where he says: "One of the greatest curses existing 'in

Great Britain to-day is the trade carried on by quack opticians." Mr. Shepperd, however, as we learn from the secretary's letter, "in order to ascertain the existence of astigmatism now so prevalent ..... will specially diagnose each case separately." This is indeed a favour. Mr. Shepperd's views upon cataract are that "it is frequently caused by the want of using glasses in proper time, from using improper glasses, or from the use of common lenses." This pathology is quite new to us. We should like to know how many cases of commencing glaucoma Mr. Shepperd has "diagnosed" as commencing cataract.

THE CAUSE AND THE TREATMENT?

To the Editors of THE LANCET.

SIRS,—I have a patient, aged forty-eight years, who for the past twelve months has been suffering from vertigo, or a sense of swimming in the head and impending falling when either walking or standing still. For some years he has been used to a good quantity of stimulants and has smoked considerably, and whilst under these influences the giddiness is better and he feels steadier, but afterwards he is much worse. He has tried going without stimulants and tobacco for a week at a time without much improvement. My patient has a ruddy complexion and is of a highly nervous and excitable temperament. The urine is free from albumin and sugar, the appetite is good, he sleeps well, and except for the dread that he may fall down when walking along the street feels quite well. Moving objects, and especially bright ones, increase the giddiness. He is astigmatic and wears astigmatic glasses.

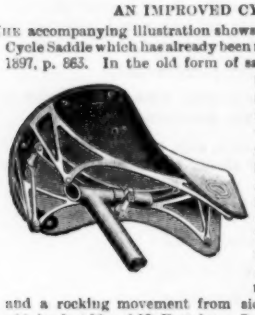
Will anyone be good enough to suggest the probable cause of the condition and the best line of treatment to adopt in such a case?

I am, Sirs, yours faithfully,

March 30th, 1898. MEDICUS.

AN IMPROVED CYCLE SADDLE.

THE accompanying illustration shows an improvement in the Esmond Cycle Saddle which has already been noticed in THE LANCET of Oct. 2nd, 1897, p. 863. In the old form of saddle, while fulfilling the claims made for it of reducing vibration and obviating perineal pressure, there was a tendency for the "seat" to slip and remain on one side. As will be seen from the illustration the inverted V-shaped supports from which the saddle is swung are fastened to the bar supporting the saddle by a rivet. This prevents any other movements than those which the saddle is intended to take—namely, a longitudinal swing and a rocking movement from side to side. The saddle can be obtained at 10 and 12, Eastcheap, London, the price being 21*s.*



A BOOT TREE.

MESSRS. DOWIE AND MARSHALL, of 455, West Strand, send us a description of a boot-tree which by a mechanical device can be made to stretch a boot at any part without putting it out of shape. These trees, which fit into any boot, are provided with a number of brass studs or knobs which act as dies and sink a hollow into the leather at any point desired in order that there may be an absence of pressure on a corn, bunion, enlarged toe-joint, &c. The trees are sold at 25*s.* per set including stretching knobs.

SO-CALLED.

To the Editors of THE LANCET.

SIRS,—If you were to take notice of a peculiarity but what also seems to me an inelegancy in medical writings, you might do much to eliminate it—at least from our own more classical literary work. I refer to the bastard compound "so-called." Perhaps not a number of THE LANCET or of any other medical journal is published in the course of the year in which it is not to be found over and over again. The classic lecture on Heart Diseases delivered at the Royal College of Physicians of London and published in to-day's impression is disfigured at least twice by the expression and in most of our text-books it breeds like a bacterium. What is the meaning of the term? It seems to me somewhat like a confession of ignorance on the points to which it refers. Cannot our ignorance be clothed in a garment that will less openly display it? Does the term occur in any other science? I have looked for it there with tears. What are we to have next? Possibly the "so-called" science of medicine or the "so-called" science of surgery—who knows?—I am, Sirs, yours faithfully,

March 26th, 1898. F. W. WRIGHT.

AN OLD SUGGESTION.

To the Editors of THE LANCET.

SIRS,—The Hospital Reform Association will be conferring a boon both on the profession and on the public if they can get the hospital authorities to require that in-patients should, when possible, bring a certificate from the doctor who has been in attendance. This is often necessary to the safety of the patient, and will at the same time help to check the abuse of charity, as in a case where I was called to attend a woman suffering from aphasia with partial paralysis. Her husband was earning good wages and there was one child. The woman was quite unfit to be moved, and was slowly improving when one morning she was taken to the hospital, where she died within twenty-four hours. Death was probably accelerated by the journey. It appears to me that the hospital authorities are at fault in not having required a medical certificate before venturing to move the sick person. There is little doubt but that much blame rests with the higher ranks of the profession who tacitly encourage these abuses, and with those practitioners who, being well-established, neglect the opportunities which not infrequent y present themselves of raising the status of the profession.

I am, Sirs, yours faithfully,

March 3rd, 1898. VI ET ARTE.

"TWO QUERIES."

To the Editors of THE LANCET.

SIRS,—In reply to the first query of "M.R.C.S." in THE LANCET of March 19th I would suggest a trial of the "Henson Anatomical Saddle." Having made a point of testing almost every variety of bicycle saddle I unhesitatingly recommend the "Henson." "M.R.C.S." must be prepared, however, having been accustomed to another pattern, to persevere with the "Henson" at least a week before all its virtues will become evident.

I remain, Sirs, yours faithfully,

J. SCOTT CHALLICE.

Lower Gilmore-place, Edinburgh, March 24th, 1898.

To the Editors of THE LANCET.

SIRS,—In reply to M.R.C.S.'s inquiry in THE LANCET of March 19th, if he will try a Christy's American Saddle I am sure he will like it. I have tried a number and I find it cooler and less fatiguing than the others, but he must have a little patience at first, for it takes some little time to get accustomed to it.

I am, Sirs, yours faithfully,

Beckington, Bath, March 21st, 1898. W. G. EVANS.

To the Editors of THE LANCET.

SIRS,—We note an inquiry in your issue of March 19th from "M.R.C.S." as to whether certain garments "are as good as Jaeger's wares for rheumatic patients." Will you permit us to say that inasmuch as we *only* sell pure wool goods whoever buys genuine Jaeger is safe.—We are, Sirs, yours faithfully,

DR. JAEGER'S SANITARY WOOLLEN SYSTEM CO., LTD.,
LEWIS R. S. TOMALIN, Managing Director.

London, March 23rd, 1898.

LONDON UNIVERSITY COMMISSION BILL, 1898.

To the Editors of THE LANCET.

SIRS,—Is there any chance of provision being made in the new University for London scheme whereby medical men may proceed to the examination for the M.D. degree without going through the intermediate steps? I am, Sirs, yours truly,

March 25th, 1898. G. P., M.R.C.S., L.R.C.P.

*** We think not.—ED. L.

A GRAVE PUBLIC DANGER.

THE following letter appeared in the *Daily Telegraph* of Tuesday last. We quote it because it so exactly bears out a recent article which appeared in our columns:—

TO THE EDITOR OF "THE DAILY TELEGRAPH."

SIR,—Having just escaped a serious accident, will you kindly allow me space in your columns to describe it for the good to the public?

Like nine-tenths of the younger women of the day I have been using xylonite (imitation tortoiseshell) combs to keep back my hair, quite unconscious of the risk I thereby ran. But a few days ago I was kneeling in front of an ordinary sitting-room fire and within five minutes the heat ignited my comb, which flared up, setting my hair on fire, only the prompt action of a brother, who threw a rug over me and stifled the flames, saving me from being severely burnt. We had some difficulty in disentangling the remnants of the comb, which burnt rapidly, destroying all the hair near it and also burning the skin itself.

Considering the extensive use of these combs by all classes and their very inflammable nature, surely legislative action should be invoked to restrict, or even prohibit entirely, their manufacture and sale. Yours faithfully,

London, March 28. ONCE BURNT.

Lambda.—(1) We cannot classify medical degrees in their order of merit. (2) The diplomas mentioned are every whit as hard to obtain as the degrees mentioned. (3) The difficulty lies in the fact that "Dr." is an academic title for some medical men only but a popular title for all.

Medicus.—The marked paragraphs are very objectionable, but we cannot see any internal evidence of the complicity of the eulogised medical man and our correspondent supplies no such evidence. We therefore prefer to believe him rather sinned against than sinning.

Dr. J. A. Beattie Crozier.—The indiscreet friend has often given this trouble. Our correspondent is advised to disavow complicity, though no one is likely to suspect him of the same.

Mr. C. E. Abbott should communicate with the inventor of the new bicycle saddle, Mr. Walter Wiglesworth, L.R.C.P., L.R.C.S. Edin., 57, Darnley-road, Hackney, N.E.

A Subscriber (P. P.).—Certifying surgeons under the Factory and Workshop Act are appointed by the Inspector of Factories. Address the Home Office, S.W.

Antisepsis.—The woman should be cautioned. As, however, no harm has occurred we cannot advise our correspondent to speak to her employer.

Mr. Basil Belmont.—The two universities have for practical purposes the same standard of examination.

An Old Subscriber (R.L.) is thanked for the suggestion.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (4th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M., Ophthalmic 1.15 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), Westminster (2 P.M.).

TUESDAY (5th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.).

WEDNESDAY (6th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.).

THURSDAY (7th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.).

FRIDAY (8th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M., Ophthalmic 10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.).

SATURDAY (9th).—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.) St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

MONDAY (4th).—ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.—8 P.M. Paper:—Mr. W. Rushton: The Use of Gutta Percha in Conservative Dentistry. Casual Communications:—Mr. S. K. Apthorpe: (1) Antral Empyæma with Ear Complication; (2) Fracture of Upper Left Central Incisor and Loss of the Right Central in a patient of ten years.—Mr. C. West: Abnormal Retention of Temporary Teeth combined with Dichotomous Digits.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Clinical Evening. Mr. J. H. Morgan: Case of Fracture of Condyle of Femur.—Mr. G. R. Turner: Case of Neuralgia successfully treated by Injection of Osmic Acid.—Dr. F. J. Smith: Case of Multiple Angioma.—Dr. R. Maguire: (1) Case of Congenital Heart Disease; (2) Case of Tremors. ? Disseminated Sclerosis.—Mr. W. H. Battle: (1) Case of Intracapsular Fracture of the Femur in a Boy; (2) Case illustrating the advantage of the Treatment by Coley's Fluid in Inoperable Tumours.

TUESDAY (5th).—PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Prof. Kanthack: The Distribution of Leprosy Bacilli in the Tissues and the Origin of Giant Cells in Leprosy.—Mr. J. G. Shattock: Molluscum Contagiosum in Two (mated) Bunting Sparrows.—Mr. H. J. Curtis: Adeno-chondroma of the Right Submaxillary Gland.—Dr. P. Kidd and Dr. Habershon: Primary Lymphosarcoma of the Pleura.—Dr. Habershon: Primary Sarcoma of the Lung.—Mr. C. F. Beadles: Two Cases of Myxœdema, one of which was associated with Trichinæ in the Muscles.—Mr. G. B. Hunt: Extreme Contraction of the Stomach with some remarks on the Pathology of the Condition.—Dr. L. Dickinson: Aneurysm of the Thoracic Aorta which Ruptured Externally.—Dr. Parkes Weber: (1) Liver showing an Early Interlobular Type of Cirrhosis from a Case of Suppurative Pylephlebitis; (2) Cirrhosis of the Liver in a Child. Card Specimens:—Mr. P. Furnivall: Fœtus with Hernia.—Dr. H. D. Rolleston: A Localised Inflammation with Effusion into the Lower Sac of the Peritoneum due to Pancreatitis.

ROENTGEN SOCIETY (11, Chandos-st., W.).—8 P.M. Paper:—Mr. J. Wimshurst: The Influence Machine and its advantages for lighting X-ray Tubes. To be followed by a Discussion.

WEDNESDAY (6th).—OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown by Dr. Handfield-Jones, Dr. Macnaughton-Jones, Dr. E. Dawson, Dr. J. Phillips, and others. Papers:—Mr. W. Heape (introduced by Dr. W. S. A. Griffith): The Menstruation and Ovulation of Monkeys and the Human Female.—Dr. H. R. Spencer: Two Cases of Fibro-myoma of the Uterus removed by Operation from Women under twenty-five years of age.

LECTURES, ADDRESSES, DEMONSTRATIONS, ETC.

MONDAY (4th).—THE SANITARY INSTITUTE (Parkes Museum, Margaret-street, W.).—8 P.M. Mr. W. C. Tyndale: House Drainage.

LONDON POST-GRADUATE COURSE.—London Throat Hospital, Gt. Portland-st., W., 8 P.M., Dr. Whistler: Tuberculosis of Larynx.

TUESDAY (5th).—LONDON POST-GRADUATE COURSE.—Bethlem Hospital, 2 P.M., Dr. Craig: Moral and Impulsive Insanities and Lunacy Law.—Hospital for Skin Diseases, Blackfriars, 4.30 P.M., Dr. Abraham: Impetigo.

WEDNESDAY (6th).—LONDON POST-GRADUATE COURSE.—Parkes Museum, Margaret-st., W., 4.30 P.M., Prof. A. Wynter Blyth: Disinfection and Disinfectants.

THE SANITARY INSTITUTE (Parkes Museum, Margaret-street, W.).—8 P.M. Discussion on the Desirability of making Water-shed Areas and Sanitary Districts Co-terminous (opened by Mr. R. E. Middleton).

EVELINA HOSPITAL (Southwark-bridge-road, S.E.).—4.30 P.M. Mr. R. D. Pedley: Dental Diseases in Children. (Post-Graduate Course.)

THURSDAY (7th).—LONDON TEMPERANCE HOSPITAL.—2 P.M. Dr. S. Fenwick: Clinical and Pathological Demonstration to Senior Students.

LONDON POST-GRADUATE COURSE.—Central London Sick Asylum, Cleveland-st., W., 5.30 P.M., Mr. Jonathan Hutchinson: Clinical Lecture.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, March 31st, 1898.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rain-fall.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Wet Bulb.	Dry Bulb.	Remarks at 8.30 A.M.
Mar. 25	29·82	N.E.	0·34	49	38	32	34	35	Snowing
,, 26	29·54	ENE	0·25	45	40	34	36	38	Overcast
,, 27	29·37	E.	0·10	56	42	36	38	39	Raining
,, 28	29·39	N.E.	0·03	51	43	36	37	38	Raining
,, 29	29·44	S.W.	...	79	50	38	38	40	Hazy
,, 30	29·51	S.E.	...	88	54	36	37	39	Foggy
,, 31	29·70	E.	...	81	51	39	42	44	Fine

During the week marked copies of the following newspapers have been received: *Bradford Observer, Hull News, Shrewsbury Chronicle, South Wales Daily News, Times of India, Pioneer Mail, Retford News, Birmingham Argus, Newcastle Chronicle, Daily Mail, Loughborough Examiner, North British Daily, Keighley News, Worthing Gazette, Glasgow Evening News, Architect, Eastern Morning News, Newry Telegraph, Coventry Standard, Builder, Yorkshire Post, Suffolk Chronicle, Scotsman, Bristol Mercury, Tunbridge Wells Advertiser, Derbyshire Times, Cheltenham Mercury, Brecon County Times, Liverpool Daily Post, Bury Guardian, Herald of Wales, Arbroath Guide, Staffordshire Advertiser, Norfolk Chronicle, Leeds Mercury, Preston Herald, Oban Telegraph, Manchester Guardian, Retford Times, Citizen, Sussex Daily News, Leicester Post, Lowestoft Standard, Montrose Review, Kent County Examiner, Carlisle Express, East Kent Times, Sanitary Record, Public Health Engineer, Local Government Chronicle, Hertfordshire Mercury, Mining Journal, Reading Mercury, City Press, Local Government Journal, Surrey Advertiser, Dewsbury District News, South London Chronicle, Australasian Medical Gazette, Weekly Free Press and Aberdeen Herald, Bristol Times and Mirror, Morpeth Herald, Todmorden News, Stratford Express, Barnsley Chronicle, Western Mail, Norwood Review, West Middlesex Herald, Lichfield Mercury, Keene's Bath Journal, Huntingdon Advertiser, &c., &c.*

Communications, Letters, &c., have been received from—

A.—Mr. C. E. Abbott Cheltenham; Messrs. Armour and Co., Lond.; After-Care Association, Lond., Secretary of; Mr. A. E. Abrahams, Lond.; Dr. James Adam, West Malling.

B.—Dr. T. Buzzard, Lond.; General S. Breck, Washington, D.C., U.S.A.; Messrs. Burroughs, Wellcome, and Co., Lond.; Messrs. Burgoyne, Burbidges, and Co., Lond.; Messrs. Brady and Martin, Newcastle-on-Tyne; Bury Dispensary Hospital, Hon. Secretary of; Messrs. J. Bell and Co., Lond.; T. B. Browne, Ltd., Lond.; Messrs. Bowen and McKechnie, Lond.; Mr. J. Brown, Greenock; Mr. C Birchall, Liverpool; Mrs. Barlow, Lond.; Birmingham City Asylum, Medical Superintendent of; *Birmingham Daily Post*; Mr. B. Belmont, Lond.

C.—Mr W. F. Clay, Edinburgh; Mr. T. A. Collinson, Middlesbrough; Dr. A. E. Cope, Lond.; Mr. J. R. Collver, Peterborough; Messrs. R. Cain and Sons, Liverpool; Mr. A. C. Cole, Lond.; Camera Club Co., Lond., Secretary of; *Canadian Medical Review*, Toronto, Editor of; Christy Saddle Co., Lond.; Mr. F. Collins, Halling; Messrs. Cassell and Co., Lond.; Cortland Wagon Co., Lond.; C. B. L., Lond.; Mr. C. Cotton, Ramsgate; Central London Throat and Ear Hospital, Lond., Secretary of; Messrs. J. and A. Churchill, Lond.; Cornwall Works Medical Association, Smethwick, Secretary of; Dr. J. B. Crozier, Lond.; Mr. A. Carter, Lond.; Dr. L. Cobbett, Cambridge; Dr. J. Corns, Oldham; Messrs. Carnrick and Co., Lond.

D.—Mr. L. C. Dillon, Bracebridge; Dispenser, Bishopston; Messrs. S. Deacon and Co., Lond.; Messrs. J. Defries and Sons, Messrs. Domeier and Co., Lond.; Messrs. Dowie and Marshall, Lond.; Messrs. Down Bros., Lond.; *Deutsche Medicinische Wochenschrift*, Berlin, Editor of; Messrs. Dixon and Hunting, Lond.; Mr. R. Darke, Lond.; Mr. C. A. Doran, Rochdale.

E.—Mr. B. Eaton, Bilston; Surgeon-Captain H. M. Earle, Peshawur, India; *Engineering News*, New York, Associate Editor of.

F.—Mr. W. T. Freeman, Reading; Mr. T. Fisher, Garstang; Mr. W. Faulkner, Exeter; F.R.C.S.E., London; Mr. R. Fletcher, Lond.

G.—Dr. F. W. Gunn, Widdrington; General Medical Council, Lond., Registrar of; Glasgow University, Assistant Clerk of; Miss R. M. Gorham, Yoxford; Mr. L. Gane, Houghton-le-Spring; Glasgow Matriculation Office, Assistant Clerk of; Gwalia, Bloomsbury; General Hospital, Nottingham, Secretary of; Gateshead Dispensary, Hon. Secretary of.

H.—Mr. J. Heywood, Manchester; Messrs. Hughes and Lancaster, Lond.; Hovis Bread Flour Co., Macclesfield; Mr. Garrett Horder, Lond.; Dr. S. Hyde, Buxton; Mr. F. R. Humphreys, Lond.; Mr. W. Hyde, Stockport; Mr. H. Hilliard, Lond.; Dr. C. J. Hare, Lond.; Dr. W. S. Hedley, Lond.; Dr. A. Haig, Lond.; Mr. S. G. Hall, York; Mr. C. Hedwith, Christchurch, N.Z.; Mr. G. F. Hilcken, Lond.; Mr. J. C. Hyam, Dublin; Mr. J. Heywood, Lond.; Messrs. Harrison and Brass, Elgin; Hampshire Chronicle Office, Winchester; Hants County Asylum, Clerk of.

I.—Imperial Live Stock Insurance Association, Lond.; Ickringills, Keighley, Secretary of; Irish Medical Schools' and Graduates' Association, Hon. Secretary of.

J.—Dr. H. Macnaughton-Jones, Lond.; Messrs. Johnsen and Jorgensen, Lond.; Jenner Society, Gloucester, Secretary of; *Journal of Medicine and Science*, Portland, U.S.A., Editor of; Mr. R. A. Jackson, Kirbymoorside.

K.—Mr. B. Kühn, Lond.; King's College Hospital, Lond., Warden of; Dr. J. J. Knox, East Molesey.

L.—Mr. H. K. Lewis, Lond.; Mrs. A. J. Lappin, Gilford; Dr. Leech, Manchester; London Temperance Hospital, Secretary of; Dr. H. S. Lunn, Lond.; Mr. T. Laffan, Cashel; Liskeard Rural District Council, Medical Officer of Health of; Mr. S. H. Long, Norwich; Mr. C. Low, Shepherd's Bush; Messrs. Lee and Nightingale, Liverpool; Mr. J. W. Leake, Lond.

M.—Dr. H. Macdonald, Dundalk; Mr. A. L. Matthews, Lond.; Mr. C. J. Myers, Louth; Mountjoy Brewery, Dublin; Messrs. May, Roberts, and Co., Lond.; Messrs. F. L. May and Co., Lond.; Mr. P. Metz, Birmingham; Maltine Manufacturing Co., Lond.; Mr. R. de Martini, Adderbury; Mr. Henry Morris, Lond.; *Moonshine*, Lond., Editor of; Messrs. Merryweathers and Sons, Lond.; Dr. Mackay, Crook; Messrs. Maple and Co., Lond.; Monkwearmouth and Southwick Hospital, Sunderland, Secretary of; Messrs. C. Mitchell and Co., Lond.; Male Nurses' Temperance Coöperation, Secretary of; Mr. T. C. Maxwell, Lond.; Dr. A. Mackenzie, Leeds; Mr. S. B. Mehta, Aden; Messrs. Mather and Crowther, Lond.; Mr. H. G. Moore, Ongar.

N.—Newcastle, College of Medicine of, Secretary of; G. Newnes, Ltd., Lond.; N. W., Lond.; *New Orleans Medical and Surgical Journal*, Editors of.

O.—Mr. E. Owen, Lond.; Mr. J. E. O'Conner, Lowestoft; Messrs. Orridge and Co., Lond.

P.—Mr. Punshon, Farnborough; Peritus, Lond.; Mr. R. Potter, Haverhill; Mr. M. Pittard, Cardiff; Mr. F. Page, Newcastle-on-Tyne; Mr. C. F. S. Perowne, Lond.; Dr. H. Peck, Aughton; Dr. P. Pope, Lond.; Messrs. Payton and Co., Lond.; Parish of St. Giles Camberwell, Clerk of; Mr. B. L. Powne, Chard.

R.—Mr. J. P. Roughton, Kettering; Messrs. Reynolds and Branson, Leeds; Messrs. J. Richardson and Co., Leicester; Mr. H. Rose, Aylesbury; Dr. T. Robinson, Lond.; Royal London Friendly Society, Lond., Superintendent of; Registered Nurses' Society, Lond., Secretary of; Rainhill County Asylum, Secretary of; Revolution Cycle Co., Dublin; Messrs. Robertson and Scott, Edinburgh.

S.—Mr. W. T. E. Sumpter, Sheringham; St. Andrew's Hospital, Northampton, Secretary of; Messrs. Swan Sonnenschien and Co., Lond.; Sociedad Propagandista del Clima, Málaga; Miss J. F. Strange; Mr. T. Smith, Lond.; Messrs. S. Smith and Co., Lond.; Shrewsbury (no name); Sigma, Lond.; Messrs. Street and Co., Lond.; Städtische Kur and Bade Verwaltung, Homburg-v.-d-Höhe; Smithsonian Institute; Washington, U.S.A.; Dr. C. H. Sers, Lond.; Dr. Squire, Lond.; Mr. E. M. Spencer, Tavistock; Society of Arts, Lond., Secretary of; Messrs. Salt and Son, Birmingham; Messrs. Street Bros., Lond.

T.—Dr. J. C. Thorowgood, Lond.; Tenant Tradesmen's National Union, Lond., President of; Mr. R. F. Tobin, Dublin; Mr. L. G. Tollputt, Kettering; T. L., Malmesbury; Mr. C. H. Tattersall, Salford; Taunton and Somerset Hospital, Accountant of.

V.—Victoria Hospital, Burnley, Secretary of; Victoria Hospital, Folkestone, Secretary of.

W.—Mr. F. Wilder, Purley Hall; Wills, Ltd., Lond.; Mr. E. D. Walker, Darlington; Mr. W. Whittingham, St. Anne's-on-the-Sea; Mrs. A. Williams, Ben Rhydding; Mr. F. W. Wright, Surrey; Mr. J. H. Wigham, Leeds; Mr. C. H. Whiteford, Plymouth; Dr. R. T. Williamson, Manchester; Messrs. Wright, Mundy, and Co., Lond.; Rev. G. H. West, Bournemouth; Mr. W. D. Watson, Leigh-on-Sea; Mr. W. L. Woolcombe, Plymouth; Mr. T. M. Watt, Lond.; Messrs. Willings, Lond.

Y.—Yorkshire College, Leeds, Registrar of.

Letters, each with enclosure, are also acknowledged from—

A.—Mr. R. R. Anderson, Fern Hill; Mr. C. Abbott, Burghead; A. G., Lond.; Mr. A. Littlejohn, Lond.; Messrs. Allen and Hanburys, Lond.; A. M., Harborne; Mr. G. C. B. Atkinson, Long Clawson; Apotheke, Lond.; A. Z., Lond.

B.—Mr. W. H. Bennett, Lond.; Berrows' Worcester Journal Co., Worcester; General B. Boyd, St. Leonards-on-Sea; Messrs. Barber and Co., Derby; Barnes, Southport; Beta, Lond.; Battery, Lond.; Barker, Lond.

C.—Mr. R. Coffee, Aspull; Clavicle, Lond.; C. M., Lond.; Chronos, Lond.; Mr. K. W. Cross, Newcastle-on-Tyne; Clericus, Lond.; C., Lond.

D.—Dr. Dewar, St. Helens, Auckland; Dr. P. J. Daly, Cork; Mr. L. Denny, Blackwater; Mr. T. Donovan, Rosscarbery; Dudley, Lond.; Mr. G. L. Daube, Frankfurt-on-Main; Mr. G. Duke, Kilmarnock; D.P.H., London.

E.—Esmond Cycle Saddle, Lond.; Ex-House Surgeon, Lond.

F.—Messrs. Fletcher, Fletcher, and Co., Lond.; Mrs. A. Fryer, Lond.; Mr. J. Fitzgerald, Cork; Mr. H. K. Fox, Cork; F. M. L., Lond.

G.—Mr. H. L. Gill, Halifax; Mrs. Galton, Lond.; Golfer, Lond.; Messrs. Gilyard Bros., Bradford; G. P., Lond.; Mr. C. Graham, Lowestoft; G. P., Hackney Downs; Dr. J. Gordon, Aberdeen.

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I.—Ingluvin, Lond.

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